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New species and records of Elateridae from North Pakistan, mostly collected by Guido Sabatinelli in 2011-2012 (Coleoptera).

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Abstract: In the present paper the result of the study of 435 Elateridae collected mainly by Dr Guido Sabatinelli in North Pakistan is presented. Fifty-six species were identified of which eighteen are new for science and twenty new for Pakistan. The new species belong to the genera *Lacon* Castelnau, 1840 (1), *Lanelater* Arnett, 1952 (2), *Adelocera* Latreille, 1829 (3), *Aeoloides* Schwarz, 1906 (1), *Conoderus* Eschscholtz, 1829 (1), *Drasterius* Eschscholtz, 1829 (1), *Heteroderes* Latreille, 1834 (3), *Denticollis* Piller & Mitterpacher, 1783 (1), *Mulsanteus* Gozis, 1875 (1), *Xanthopenthes* Fleutiaux, 1918 (1), *Adiaphorus* Candèze, 1859 (1), *Dicronychus* Brullé, 1832 (1), and *Craspedostethus* Schwarz, 1898 (1). Nine genera (*Adiaphorus*, *Craspedostethus*, *Denticollis*, *Mulsanteus*, *Octocryptus* Candèze, 1897, *Priopus* Castelnau, 1840, *Rismethus* Fleutiaux, 1947, *Selatosomus* Stephens, 1830, and *Xanthopenthes*) are mentioned for the first time from Pakistan. In this study six new synonymies and four new combinations were also established.

Key words: Coleoptera, Elateridae, new species, new records, new synonymies, new combinations, North Pakistan.

Resumen: Nuevas especies y citas de Elateridae del Norte de Pakistán, en su mayoría colectados por Guido Sabatinelli en 2011-2012 (Coleoptera). En el presente trabajo se presenta el resultado del estudio de 435 Elateridae capturados principalmente por el Dr. Guido Sabatinelli en el Norte de Pakistán. Se identificaron cincuenta y seis especies de las que dieciocho son nuevas para la ciencia y veinte nuevas para Pakistán. Las especies nuevas pertenecen a los géneros *Lacon* Castelnau, 1840 (1), *Lanelater* Arnett, 1952 (2), *Adelocera* Latreille, 1829 (3), *Aeoloides* Schwarz, 1906 (1), *Conoderus* Eschscholtz, 1829 (1), *Drasterius* Eschscholtz, 1829 (1), *Heteroderes* Latreille, 1834 (3), *Denticollis* Piller & Mitterpacher, 1783 (1), *Mulsanteus* Gozis, 1875 (1), *Xanthopenthes* Fleutiaux, 1918 (1), *Adiaphorus* Candèze, 1859 (1), *Dicronychus* Brullé, 1832 (1) y *Craspedostethus* Schwarz, 1898 (1). Nueve géneros (*Adiaphorus*, *Craspedostethus*, *Denticollis*, *Mulsanteus*, *Octocryptus* Candèze, 1897, *Priopus* Castelnau, 1840, *Rismethus* Fleutiaux, 1947, *Selatosomus* Stephens, 1830 y *Xanthopenthes*) se citan por primera vez para Pakistán. También se establecen en este estudio seis nuevas sinonimias y cuatro nuevas combinaciones.

Palabras clave: Coleoptera, Elateridae, nuevas especies, nuevas citas, nuevas sinonimias, nuevas combinaciones, norte de Pakistán.

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Introduction

The geography of Pakistan is a profound blend of landscapes varying from plains to deserts, forests, hills, and plateaus ranging from the coastal areas of the Arabian Sea in the south to the mountains of the Karakoram Range in the north. Pakistan lies in the temperate zone. The climate varies from tropical to temperate. The localities where the studied material was collected are essentially located in the northern highlands of Pakistan, embracing the foothills of Himalayan, Karakorum and Hindukush mountain ranges and the lower elevation (high plain) areas of Potohar plateau.

After the devastating flood that occurred in August 2010, the World Health Organization established a humanitarian programme to provide assistance to ten million of internally displaced people and Dr Guido Sabatinelli, as head of the WHO office for Pakistan, used this opportunity to undertake entomological samplings and research.

Based in Islamabad, he set a permanent collection station at the extreme northern border of Islamabad, facing the National Park of the Margalla Hills. Most of the material was therefore collected from this permanent station located in the E7 slot of Islamabad. In this area up to a height of 1,000 m the vegetation is represented by the sub-tropical dry forest.

Although the security situation due to terrorism and civil unrest was quite critical those years, Guido Sabatinelli was allowed under military escort to undertake visits to northern districts of Chitral, Swat, Abbottabad, Hazara and Azad Kashmir and wherever possible he always collected insects with light traps. In these zones the coniferous forests occur from 1,000 to 4,000 m of altitude where silver fir (*Abies alba*), spruce (*Picea smithiana*), deodar (*Cedrus deodara*), blue pine (*Pinus wallichiana*), and chir pine (*Pinus roxburghii*) are the most common varieties. Near the major towns the coniferous and scrub forests have been reduced to scanty growth in most places.

Material and methods

Collection methods - The large majority of the 435 specimens studied were collected at night (8 p.m. - 4 a.m.) with light traps using low consumption UV bulbs of 2700 k wave length.

Measurements - Body length is measured along the midline from the anterior margin of frons to apex of the elytra; width is measured across the broadest part of the body. Pronotal length is measured along the midline; the width is at the broadest part, usually at hind angles.

Abbreviations - The names of institutions, museums and collections providing material for this study are abbreviated as follows: CPG, collection of G. Platia, Gatteo (Italy); CRG, collection of S. Riese, Genoa (Italy); HNHM, Hungarian Natural History Museum, Budapest (Hungary).

The subfamilial and tribal placement of genera listed below follows Bouchard *et al.* (2011). Some contributions to carry out this work have been: Prosvirov & Savitsky (2011), Vats & Chauhan (1991, 1992) and Vats & Kashyap (1992a, 1992 b, 1992c, 1993, 1995).

Results

Subfamily **Agrypninae** Candèze, 1857

Tribe **Agrypnini** Candèze, 1857

Lacon brachypterus n. sp.

(Figs. 44, 58, 96, 127)

Material examined. Holotype ♀ - **Pakistan:** KP, Hazara distr., Kaghan Valley, Naran, 2400 m, 2.VII.1986, Dacatra & Forti leg. (CPG). 1 Paratype ♀ - same data as HT (CPG).

Diagnosis. A species easily separated from all the known by the very small size and the reduced wings.

Description.

Female. Moderately shiny; entirely brown with ferruginous shadings; antennae and legs ferruginous; covered with moderate, recumbent, yellow-fulvous pubescence.

Frons flat, slightly impressed only at the anterior margin, this complete, subarcuate, not protruding above the clypeus; punctuation coarse, punctures deep, simple, contiguous.

Antennae short, not reaching for about three articles the apices of posterior angles of pronotum, serrated from the third article on; second article subcylindrical, as long as wide, third elongate, subtriangular, 2.3x longer than wide; fourth to tenth shorter, triangular, on average 1.5x

longer than wide, the last longer than penultimate, subellipsoidal, slightly constricted before the apex.

Pronotum as long as wide, widest at middle, very convex, abruptly sloping at sides and base with a trace of mid-longitudinal impressed line on the basal slope; sides arcuate, regularly narrowing forwards and backwards, slightly sinuate before the posterior angles, the latter short, pointed, slightly divergent and feebly carinate, lateral margin complete and substraight; punctures coarse, regularly distributed, deep, simple with very short, shiny intervals.

Scutellum quadrangular, gently sinuate at sides, convex, roughly punctured.

Elytra 2.0x longer than the pronotum and as wide as it, ovaliform, widest at middle, convex, regularly rounded at the apices and with surface densely and regularly punctured, striae indistinct.

Wings reduced reaching only the middle of elytra and unable to fly.

Pronoto-sternal sutures furrowed for about the two-thirds of their length, propleurae without furrows or depressions.

Bursa copulatrix sclerified as in the Fig. 44.

Male unknown.

Size. Length 6.00-6.10 mm; width 1.93-2.03 mm.

Etymology. The name is derived from the reduced wings of the species.

Lacon kurukshetrensis Vats & Kashyap, 1992
(Figs. 1, 1a, 128)

Material examined. 23 spcm. (♂♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, 15.VII.2012, G. Sabatinelli leg., at light; KP, Barseen (35°21'N, 73°12'E), 900 m, 10.VII.1998, C. Csorba & L. Ronkay leg., at light (CPG; HNHM).

Aedeagus as in Figs. 1, 1a (length 2.00 mm).

Distribution. India (Haryana) (Cate, 2007). New species for Pakistan.

Lacon modestus (Boisduval, 1835)
(Figs. 2, 2a)

Lacon carinatus Vats & Kashyap, 1992 (syn. n.)

Material examined. 4 spcm. (♂) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, 15.VII.2012, G. Sabatinelli leg., at light (CPG).

Aedeagus as in Figs. 2, 2a (length 1.62 mm).

Distribution. Iran, Japan (Iwo-jima), Oman, Qatar, Saudi Arabia, Taiwan, Afrotropical Region, Australian Region, Neotropical Region, Oriental Region (Cate, 2007); India (Uttar Pradesh, Haryana) (*carinatus* Vats & Kashyap, 1992); Arab Emirates (Platia, 2007); Israel (Platia, 2010); Yemen (Socotra Is.) (Platia, 2012); Pakistan (Akhter et al., 2014).

Lacon monticola (Candèze, 1897)
(Figs. 3, 3a, 45, 129)

Material examined. 5 spcm. (1♂, 4♀♀) - **Pakistan:** KP, Hazara distr., Kaghan Valley, Shogran, 2700 m, V.1981, T. Porion leg. (CPG; CRG).

Described very shortly on a single specimen, I give a more complete description below.

Redescription.

Male. Not shiny; entirely dark-brown covered with moderate, short, recumbent, fulvous pubescence.

Frons flat on vertex, deeply impressed from the middle to the anterior margin, this straight, not protruding above the clypeus; punctures broad, deep, simple, with very short, shagreened intervals.

Antennae short, just reaching the middle of pronotum, serrated from the third article on, second article small, globous, third triangular, nearly as long as wide, fourth triangular, just longer than the third and as long as wide; fifth to tenth a little shorter than the fourth and wider than long.

Pronotum as long as wide, widest at middle, moderately convex on the disk, rather flattened along the lateral margins, with a short, shallow depression at the basal slope; sides subparallel at the middle, gradually narrowing to the base, slightly sinuate before the posterior angles, the latter short, truncate, divergent; lateral margins complete and totally visible in a dorsal view; punctuation coarse, punctures on the disc deep, simple, with more or less variable and short, shagreened intervals, gradually denser towards the sides where are nearly contiguous.

Scutellum quadrangular, flat, very densely punctured.

Elytra 2.0x longer than the pronotum and as wide as it, depressed inside of the humera from the base to before the middle; sides gradually dilated from the base and widest behind the middle then narrowing to the apices; surface densely punctured with indistinct striae.

Wings reduced just exceeding the middle of elytra and not able to fly.

Aedeagus as in Figs. 3, 3a (length 1.78 mm).

Female. Very similar to the male with a larger body. Bursa copulatrix sclerified as in Fig. 45.

Size. Length 10.50-13.00 mm; width 3.60-4.20 mm.

Distribution. "Himalaya" (Cate, 2007). New species for Pakistan.

Lanelater bipunctatus (Candèze, 1857)

(Figs. 4, 4a)

Material examined. 12 spcm. (♂) - **Pakistan:** KP, Chitral distr., Chitral (35°54'N, 71°48'E), 1630 m, 25.VI.2011, G. Sabatinelli leg., at light (CPG); KP, Valley of Indus, Barseen, Motel Barseen, 1100 m, 21.VI.2000, Z. Varga & G. Ronkay leg.; KP, Barseen (35°21'N, 73°12'E), 900 m, 10.VII.1998, C. Csorba & L. Ronkay leg., at light (CPG; HNHM).

Aedeagus as in Figs. 4, 4a (length 4.00 mm).

Distribution. The species was already recorded from North Pakistan (Platia, 1988). Iran, Pakistan, India (Uttar Pradesh) (Cate, 2007).

Lanelater sabatinellii n. sp.

(Figs. 46, 46a, 59, 97, 97a, 130)

Material examined. Holotype ♀ - **Pakistan:** Islamabad, Margalla Hills (33°46'N, 73°06'E), 1060 m, 22.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG).

Diagnosis. A species very distinct to all the known from this region for the very shiny pronotal surface, subparallel sides of pronotum, and mandibles dented just before the apex.

Description.

Female. Shiny; head, pronotum and scutellum black-piceous, elytra blackish; antennae and legs brown; covered with moderate, recumbent, yellowish pubescence.

Frons flat on vertex, slightly depressed before the anterior margin, the latter complete, arcuate and touching the clypeus at the middle; punctures of variable diameters, umbilicate with variable shiny intervals to contiguous.

Mandibles feebly dented before the apex.

Antennae reaching only the middle of pronotum, serrated from the third article on, second

article subcylindrical, as long as wide, third subtriangular, 1.8x longer than the second and 1.5x longer than wide, fourth triangular, slightly longer than the third and 1.8x longer than wide; fifth to tenth triangular, subequal in length and about as long as wide, the last one just longer than penultimate, subellipsoidal visibly constricted before the apex.

Pronotum as long as wide, widest at the apices of the posterior angles, convex at centre, gradually sloping at sides, more abruptly at base; sides subparallel narrowed at the anterior third, sinuate just before the posterior angles, the latter long, acuminate, divergent, with an apparent carina prolonged over the middle of the lateral margins and running parallel; prescutellar tubercle moderate, subrectangular; punctuation on the disc sparser with punctures slightly umbilicate and intervals on average equal to their own diameters, gradually denser, clearly umbilicate towards the sides with very short intervals.

Scutellum subrectangular, ridged at base, rounded at apex, slightly impressed, finely punctured.

Elytra 2.1x longer than the pronotum and as wide as it, sides subparallel from the base to behind the middle, then gradually tapering to the apices; striae superficial, and regularly punctate from the base to the apices, interstriae flat with dense and fine punctures.

Bursa copulatrix sclerified as in Figs. 46, 46a.

Size. Length 25.00 mm; width 7.30 mm.

Male unknown.

Etymology. The species is dedicated to the collector, G. Sabatinelli.

Lanelater pakistanicus n. sp.

(Figs. 5, 5a, 47, 60, 60a, 98, 98a, 131)

Material examined. Holotype ♂ - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG). 22 Paratypes (♂♀) - same data as HT; AJK, Muzaffarabad, 15.VIII.2012, G. Sabatinelli leg., at light (1); Islamabad, Margalla Hills (33°46'N, 73°06'E), 1060 m, 22.VI.-20.VII.2011, G. Sabatinelli leg., at light; Islamabad, Margalla Hills, Pir Sohawa (33°49'N, 73°08'E), 1000 m, 21.V.1998, Gy. M. Laszlo & G. Ronkay leg.; Punjab prov., Indus river, Rajanpur distr., near Jampur, 16.VIII.2003; AJK, Jhelum river, 1500 m, 22.VII.-10.VIII.2003, V. Gurko (CPG; CRG; HNHM).

Diagnosis. A species allied to *L. densus* Vats & Kashyap, 1993 from North India (Uttar Pradesh), it is separated by the shorter antennae, dented mandibles, and slenderer male genitalia.

Description.

Male. Moderately shiny; entirely brown-ferruginous to blackish with antennae and legs brown-ferruginous; covered with short, dense, recumbent, yellowish pubescence.

Frons flat on vertex, moderately impressed before the anterior margin, the latter obsolete and slightly prolonged at the middle touching the clypeus; punctuation coarse, punctures umbilicate, contiguous or with very short, shagreened intervals; two small, irregular, impunctate, more or less shagreened areas are present at the middle.

Antennae not reaching for about 1.5 articles the apices of posterior angles of pronotum, serrated from the third article on; second article small, globous, third subtriangular, 1.15-1.25x longer than wide and 1.5x longer than the second; fourth to tenth triangular, fourth longer than the following and about 1.7x longer than wide; fifth to tenth subequal in length and on average 1.5x longer than wide, the last one longer than the penultimate, subellipsoidal abruptly constricted at the apical third.

Pronotum 1.10-1.15x wider than long, widest at the apices of posterior angles, very convex at the middle, gradually sloping at sides, more abruptly at base; a mid-longitudinal, narrow, impunctate line more or less developed can be present; sides more or less arcuate, from the middle or just behind the middle gradually narrowing to the anterior margin, quite sinuate before the posterior angles, the latter

long, acuminate, very divergent, with a fine carina very close to the lateral margins and prolonged to the middle; lateral margins very visible on a dorsal view for all its length; punctuation coarse, punctures variable, on disc slightly umbilicate, with very short, moderately shagreened intervals, gradually denser, clearly umbilicate with very short, shagreened intervals towards the sides; prescutellar tubercle small, quadrangular.

Scutellum subrectangular, slightly emarginate at the middle of the base, sinuate at sides, flat, finely punctured with shagreened surface.

Elytra 2.7-2.8x longer than the pronotum and as wide as it, moderately convex; sides from the base to the apices gradually narrowing, apices just emarginate; striae very superficial, moderately punctured; interstriae flat with dense and finer punctures and with shagreened surface.

Aedeagus as in Figs. 5, 5a (length 4.75 mm).

Female. Body larger with shorter antennae just surpassing with the last article the middle of pronotum and less serrate.

Bursa copulatrix sclerified as in Fig. 47.

Size. Length 25.00-28.00 mm; width 7.40-10.30 mm.

Etymology. The name is derived from the country where the species was collected.

***Adelocera sabatinellii* n. sp.**
(Figs. 6, 6a, 61, 99, 132)

Material examined. Holotype ♂ - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG).

Diagnosis. Species near *Adelocera morniensis* Vats & Kashyap, 1992 from NW India (Haryana) for the bicoloured pronotum and male genitalia with paramera acutely dentate, it can be separated by the pronotum narrower than the elytra, with posterior angles truncate.

Description.

Male. Moderately shiny; bicoloured with a moderate contrast; entirely blackish with the great part of frons, sides of pronotum, base of elytra, and underside, ferruginous; antennae with the first two articles ferruginous, then yellowish, legs ferruginous; covered with moderate, recumbent, silver, scale-like pubescence.

Frons very slightly impressed at centre, anterior margin not thickened, feebly emarginate at the middle and nearly touching the clypeus; punctuation coarse, punctures deep and contiguous.

Antennae short, just exceeding the middle of pronotum, strongly serrated from the fourth article on; second and third articles subequal in length, second subcylindrical, third subconical, as long as wide; second and third articles, taken together, as long as the fourth; fourth to tenth triangular, fifth to seventh as long as wide, eighth to tenth wider than long, the last one longer than the penultimate, subellipsoidal.

Pronotum 1.3x wider than long, widest at the middle, strongly convex, abruptly sloping at sides, nearly vertically sloping at base; sides subparallel at the middle, conspicuously narrowing at the anterior third and constricted at the apical extremities; very shortly narrowing near the posterior angles, the latter very short and smoothed, not carinate; lateral margins entire and visible in a dorsal view; punctuation very strong, on the disc with punctures deep, simple or very slightly umbilicate with very short shiny intervals, gradually denser and contiguous towards the lateral extremities.

Scutellum shield-shaped impressed at base, densely punctured.

Elytra 2.55x longer than the pronotum and wider than it, very convex; sides ovaliform; surface very coarsely and densely punctured with indistinct striae.

Propleurae deeply furrowed to receive the anterior legs and running parallel to the antennal grooves; metasternal tarsal groove present; prosternum flat and laterally carinate.

Aedeagus as in Figs. 6, 6a (length 0.87 mm).

Female unknown.

Size. Length 6.50 mm; width 2.55 mm.

Etymology. The species is dedicated to the collector, G. Sabatinelli.

Adelocera islamabadensis n. sp.

(Figs. 7, 7a, 62, 100, 133)

Material examined. Holotype ♂ - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG).

Diagnosis. Species very similar to *A. foveatus* Vats & Kashyap, 1992 for the general shape of pronotum but without depressions at base, smaller size, and apices of paramera in the male genitalia acutely dentate.

Description.

Male. Moderately shiny; entirely blackish with undefined ferruginous areas at sides of pronotum, base and sides of elytra and underside; antennae with the first article and legs ferruginous; antennae from second article yellowish; covered with thickened, whitish, scale-like pubescence on all the surface.

Frons slightly impressed from the middle to the anterior margin, the latter obsolete and moderately emarginate at the middle nearly touching the clypeus; punctures coarse, deep, contiguous.

Antennae just exceeding the middle of pronotum, strongly serrated from the fourth article on; second and third articles subequal in length, second subcylindrical, third subconical, as long as wide; second and third, taken together, as long as the fourth; fourth to tenth triangular, on average just longer than wide, last as long as penultimate, subellipsoidal, asymmetrically constricted before the apex.

Pronotum 1.4x wider than long, widest at the apices of posterior angles of pronotum, conspicuously convex at the centre of disc, abruptly sloping at sides and nearly vertically at base; sides subparallel from the middle to near the extremity of the posterior angles, the latter very shortly pointed, divergent, acarinate; lateral margins entire and nearly completely visible in a dorsal view; punctures deep, simple, on average with intervals.

Scutellum shield-shaped impressed at base, densely punctured.

Elytra 2.35x longer than the pronotum and as wide as it, very convex; sides feebly dilated from the base to before the middle then gradually tapering towards the apices; surface very coarsely and densely punctured with indistinct striae.

Propleurae deeply furrowed to receive the anterior legs and running parallel to the antennal grooves; metasternal tarsal groove present; prosternum flat and laterally limited by a smooth and shiny line.

Aedeagus as in Figs. 7, 7a (length 1.03 mm).

Female unknown.

Size. Length 7.30 mm; width 3.10 mm.

Etymology. The name is derived from Islamabad, the province where the species was collected.

Adelocera kundlanensis n. sp.

(Figs. 8, 8a, 63, 101, 134)

Material examined. Holotype ♂ - **Pakistan:** Baluchistan, 90 km SSE of Quetta, Kundlani, 20-23.II.1995, Hauck & Čížek leg. (CPG).

Diagnosis. A species easily separated from all the known species of the region for the very small size and body densely covered with thickened whitish scale-like pubescence; for the male genitalia with simple paramera it is allied to *A. schuberti* Platia & Gudenzi, 2002 from Turkey.

Description.

Male. Moderately shiny; entirely brownish with yellow undefined areas at angles of pronotum and base of elytra; antennae and legs yellowish; covered with very apparent, recumbent, whitish, scale-like pubescence.

Frons convex, flat only at the anterior margin, the latter straight and touching the clypeus; punctures coarse, deep, simple, contiguous.

Antennae short just exceeding the middle of pronotum, serrated from the fourth article on; second and third articles subcylindrical and subequal in length, taken together, longer than the fourth; fourth to tenth triangular; fourth to sixth as long as wide; seventh to tenth wider than long; the last longer than the penultimate, subellipsoidal, asymmetrically constricted before the apex.

Pronotum as long as wide, widest at the middle and base, very convex, abruptly sloping at sides and nearly vertically at base; sides subparallel from before the middle to the apices of posterior angles, the latter pointed, not divergent and acarinate; lateral margin entire and nearly all visible in a dorsal view; punctures coarse, rather uniformly distributed, deep, simple with very short intervals.

Scutellum quadrangular, flat, punctured.

Elytra 2.1x longer than the pronotum and as wide as it, moderately convex; sides ovaliform; surface regularly striate and deeply punctured; interstriae flat with smaller punctures.

Propleurae deeply furrowed to receive the anterior legs and running parallel to the antennal grooves; metasternal tarsal groove present.

Aedeagus as in Figs. 8, 8a (length 0.71 mm).

Size. Length 3.75 mm; width 1.28 mm.

Female unknown.

Etymology. The name is derived from Kundlani, the locality where the species was collected.

Adelocera afghana Platia & Gudenzi, 2002

(Figs. 64, 102, 135)

Material examined. 1 spcm. (♀) - **Pakistan:** KP, Barseen (35°21'N, 73°12'E), 900 m, 10.VII.1998, C. Csorba & L. Ronkay leg., at light (CPG).

Described on a single male specimen in Platia & Gudenzi (2002). Female extremely similar to the male, slightly larger. Size. Length 5.20 mm; width 2.15 mm.

Distribution. Afghanistan (Cate, 2007). New species for Pakistan.

Adelocera foveatus Vats & Kashyap, 1992

(Figs. 9, 9a, 65, 103, 136)

Adelocera baghensis Akhter, Kabalak, Rizvi & Ahmed, 2014 (syn. n.)

Material examined. 4 spcm. (3♂♂, 1♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG); Islamabad, 23.V.1992, G. Csorba & M. Hrebaly leg., at light (CPG; HNHM).

Aedeagus as in Figs. 9, 9a (length 1.50 mm).

Distribution. India, Pakistan (*baghensis* Akhter et al., 2014).

Agrypnus argentosquamosus Vats & Kashyap, 1992

(Figs. 10, 10a, 48, 66, 104, 137)

Material examined. 31 spcm. (♂♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, 15.VII.2012, G. Sabatinelli leg., at light (CPG).

Aedeagus as in Figs. 10, 10a (length 1.81 mm).
Bursa copulatrix sclerified as in Fig. 48.

Distribution. India (Uttar Pradesh) (Cate, 2007). New species for Pakistan.

Agrypnus consobrinus (Candèze, 1857)
(Figs. 11, 11a, 67, 138)

Material examined. 2 spcm. (♂) - **Pakistan:** Islamabad, Margalla Hills (33°46'N, 73°06'E), 1060 m, 22.VI.-20.VII.2011, 16.VII.2012, G. Sabatinelli leg., at light (CPG).

Aedeagus as in Figs. 11, 11a (length 1.84 mm).

Distribution. India (Himachal Pradesh, Uttar Pradesh) (Cate, 2007). New species for Pakistan.

Agrypnus ellipticus (Candèze, 1857)
(Figs. 12, 12a, 68, 105, 139)

Material examined. 19 spcm. (♂♀) - **Pakistan:** AJK, Poonch distr., Rawalakot, Samsabad, 2150 m, 17.VII.2012, G. Sabatinelli leg., at light; AJK, Muzaffarabad, 15.VIII.2012, G. Sabatinelli leg., at light; AJK, Rawalakot Kotla, 7.VI.2012, G. Sabatinelli leg., at light; Islamabad, Margalla Hills (33°46'N, 73°06'E), 1060 m, 16.VII.2012, G. Sabatinelli leg., at light; Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, 1-15.IX.2012, G. Sabatinelli leg., at light trap (CPG).

Aedeagus as in Figs. 12, 12a (length 2.06 mm).

Distribution. The species was already recorded from North Pakistan (Platia, 1988). Afghanistan, Pakistan, India (Himachal Pradesh, Uttar Pradesh), "Himalaya" (Cate, 2007).

Agrypnus piger (Candèze, 1889)
(Figs. 13, 13a, 49, 69, 140)

Agrypnus squamafraxineus Vats & Kashyap, 1992 (syn. n.)

Material examined. 10 spcm. (1♂, 9♀♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, 15.VI.2102, 15.VII.2012, G. Sabatinelli leg., at light (CPG).

Aedeagus as in Figs. 13, 13a (length 2.06 mm).

Bursa copulatrix sclerified as in Fig. 49.

Distribution. India (Bengala) (Schenkling, 1927); India (Uttar Pradesh) (*squamafraxineus*) (Cate, 2007); Pakistan (Akhter et al., 2012).

Agrypnus tostus (Candèze, 1857)
(Figs. 106, 141)

Material examined. 1 spcm. (♀) - **Pakistan:** Islamabad, Margalla Hills (33°46'N, 73°06'E), 1060 m, 22.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG).

Distribution. India (Uttar Pradesh), China, Taiwan, Oriental Region (Cate, 2007). New species for Pakistan.

Agrypnus transversus (Candèze, 1857)
(Figs. 14, 14a, 70, 107, 107a, 142)

Material examined. 15 spcm. (♂♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011; 15.VII.2012, G. Sabatinelli leg., at light (CPG).

Aedeagus as in Figs. 14, 14a (length 1.56 mm).

Distribution. India (Uttar Pradesh, "North India"), Oriental Region (Cate, 2007). New species for Pakistan.

Agrypnus truncatus (Herbst, 1806)
(Figs. 15, 15a, 71, 143)

Agrypnus holontelius Vats & Kashyap, 1992 (**syn. n.**)

Material examined. 2 spcm. (♂) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, 15.VII.2012, G. Sabatinelli leg., at light (CPG).
Aedeagus as in Figs. 15, 15a (length 2.81 mm).

Distribution. Nepal, India (Sikkim, Darjeeling), "North India", China (Xizang), Oriental Region (Cate, 2007). India (Himachal Pradesh, Uttar Pradesh) (*holontelius*) (Cate, 2007). New species for Pakistan.

Compsolacon cashmiriensis Della Beffa, 1931
(Figs. 16, 16a, 144)

Material examined. 6 spcm. (♂♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG).
Aedeagus as in Figs. 16, 16a (length 2.68 mm).
The species was already recorded under *Agrypnus* Eschscholtz, 1829 in Platia (1988).

Distribution. Pakistan, India (Kashmir) (Cate, 2007).

Compsolacon triticumunis (Vats & Kashyap, 1992) (**comb. n.**)
(Figs. 50, 72, 108, 145)

Agrypnus triticumunis Vats & Kashyap, 1992
Agrypnus baghensis Akhter, Kabalak, Rizvi & Ahmed, 2014 (**syn. n.**)

Material examined. 18 spcm. (♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, 15.VII.2012, G. Sabatinelli leg., at light (CPG).
Bursa copulatrix sclerified as in Fig. 50.

Distribution. India (Himachal Pradesh; Uttar Pradesh) (Cate, 2007); Pakistan (*baghensis* Akhter et al., 2014).

Compsolacon tuberosus (Vats & Kashyap, 1992) (**comb. n.**)
(Figs. 17, 17a, 73, 146)

Agrypnus tuberosus Vats & Kashyap, 1992

Material examined. 1 spcm. (♂) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 15.VII.2012, G. Sabatinelli leg., at light (CPG).
Aedeagus as in Figs. 17, 17a (length 1.78 mm).

Distribution. India (Himachal Pradesh, Uttar Pradesh, Rajasthan) (Cate, 2007). New species for Pakistan.

Octocryptus babaulti Fleutiaux, 1944
(Figs. 18, 18a, 74, 109, 147)

Octocryptus kalesarensis Vats & Kashyap, 1995 (**syn. n.**)

Material examined. 1 spcm. (♂) - **Pakistan:** Islamabad, Margalla Hills (33°46'N, 73°06'E), 1060 m, 16.VII.2012, G. Sabatinelli leg., at light (CPG).

Aedeagus as in Fig. 18, 18a (length 0.80 mm).

A key to the known species of the genus is given by Fleutiaux (1944).

Distribution. India (Himachal Pradesh) (Cate, 2007); India (Uttar Pradesh, Oriental Region) (*kalesarensis* Vats & Kashyap, 1992) (Cate, 2007). New species for Pakistan.

Rismethus pistrinarius (Candèze, 1857)
(Figs. 126, 148)

Material examined. 1 spcm. (♀) - **Pakistan:** KP, Valley of Indus, Barseen, Motel Barseen, 1100 m, 28.VIII.2001, B. Benedek & G. Ronkay leg. (HNHM).

Distribution. India (Uttar Pradesh, "North India"), Nepal, Oriental Region (Cate, 2007). New species for Pakistan.

Tribe **Hemirhipini** Candèze, 1857

Calais afghanicus (Chassain, 1991)
(Figs. 51, 75)

Material examined. 1 spcm. (♀) - **Pakistan:** Islamabad, Margalla Hills (33°46'N, 73°06'E), 1060 m, 22.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG).

Bursa copulatrix sclerified as in Fig. 51.

Distribution. Afghanistan, Pakistan (Cate, 2007).

Tribe **Oophorini** Gistel, 1848

Aeoloides hreblayi n. sp.
(Figs. 19, 76, 110, 149)

Material examined. Holotype ♂ - **Pakistan:** Islamabad, 23.V.1992, G. Csorba & M. Hreblay leg., at light (HNHM). 1 Paratype ♂ - same data as HT (CPG).

Diagnosis. A species near *Aeoloides figuratus* (Germar, 1844), it is separated by the smaller size, the colour of head and pronotum, and the sides of pronotum perfectly parallel in the posterior half.

Description.

Male. Moderately shiny; bicoloured; head, a mid-longitudinal, not well defined stripe along the pronotum, scutellum, base, sides, apex and two narrow obliquely transversal stripes before the apices of elytra, meso and metasternum, abdomen blackish; all the remaining parts yellow ferruginous; antennae yellow, darkened from the fourth article on, legs yellow; covered with a very dense, recumbent, yellow-fulvous pubescence.

Frons convex, anterior margin straight just protruding above the clypeus, punctures approximately of the same size, with very short intervals.

Antennae short, just exceeding the middle of pronotum, moderately serrated from the fourth article on; second and third articles subcylindrical, with the second a little larger in diameter and longer than the third, taken together, notably longer than the fourth; fourth to tenth subtriangular, longer than wide, the last one longer than the penultimate, ellipsoidal.

Pronotum 1.27x wider than long, widest at the middle and at the apices of posterior angles, moderately and regularly convex; sides perfectly parallel for about the two-thirds of its length, posterior angles acuminate, not divergent, with a short and slight carina directed inside; lateral margins

complete and substraight, not visible in a dorsal view; punctuation uniformly distributed; punctures of double sizes, larger, deep and simple punctures are regularly mixed with much more smaller and simple punctures, intervals very short and shiny.

Scutellum quadrangular, slightly convex and very finely punctured.

Elytra 2.35-2.40x longer than the pronotum and as wide as it, moderately convex, sides very gradually and regularly tapering from the base to the apices; striae deeply punctured and regularly marked; interstriae subconvex with very fine punctures.

Articles of tarsi regularly decreasing in length, simple.

Aedeagus as in Fig. 19 (length 0.47 mm).

Female unknown.

Size. Length 3.35-3.43 mm; width 1.15-1.18 mm.

Etymology. The species is dedicated to one of the collectors, the Hungarian lepidopterist M. Hreblay.

Conoderus aeolodermoides n. sp.

(Figs. 77, 111, 150)

Material examined. Holotype ♀ - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 1-15.IX.2012, G. Sabatinelli leg., at light (CPG). 1 Paratype ♀ - same as HT and 15.VI.2012 (CPG).

Diagnosis. A very small *Conoderus* Eschscholtz, 1829 with the "facies" of an *Aeoloderma* Fleutiaux, 1928 species but immediately distinct for a very small carina on the posterior angles of pronotum.

Description.

Female. Moderately shiny; bicoloured; entirely yellowish except for the head, an anchor-like spot on the middle of pronotum, base of elytra, second to third or to fifth interstriae extended to the eighth before the apex, blackish; antennae, legs and underside yellowish; covered with short, recumbent, dense, yellow-fulvous pubescence.

Frons flat or slightly convex, anterior margin complete, substraight, just protruding above the clypeus; punctures moderate, deep, simple with intervals on average equal to their own diameters.

Antennae not reaching for about 1.5 articles the apices of posterior angle of pronotum, very feebly serrated from the fourth article on; second article subcylindrical, third subconical a little longer than the second; second and third, taken together, 2.3x longer than fourth; fourth to tenth conical to subtriangular, the fourth a little longer than the following, these on average twice longer than wide, the last one a little longer than penultimate, subellipsoidal.

Pronotum as long as wide to a little longer, widest just behind the middle, convex, abruptly sloping at sides and at base; sides very feebly and regularly arcuate, just sinuate before the posterior angles, the latter acuminate, slightly divergent, with a short carina, a little apparent, extremely close to the lateral margins, these complete and visible only for a very short stretch in a dorsal view; punctuation uniformly distributed, punctures of approximately the same size, simple or slightly umbilicate with very short, shiny intervals.

Scutellum quadrangular, ridged at base, moderately convex and very finely punctured.

Elytra 2.00-2.04x longer than the pronotum and as wide as it, convex; sides subparallel from the base to behind the middle, striae well marked and deeply punctured; interstriae subconvex densely and more finely punctured.

Fourth article of tarsi deeply impressed from the base to receive the last article.

Male unknown.

Size. Length 4.35-5.00 mm; width 1.21-1.31 mm.

Etymology. The name is derived from the very high similarity in the pattern of body colour to some species of the genus *Aeoloderma*.

Conoderus nigromaculosus Vats & Chauhan, 1992
(Figs. 78, 112, 151)

Material examined. 1 spcm. (♀) - **Pakistan:** Islamabad, Margalla Hills (33°46'N, 73°06'E), 1060 m, 22.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG).

Distribution. India (Uttar Pradesh) (Cate, 2007). New species for Pakistan.

Drasterius sabatinellii n. sp.
(Figs. 79, 119, 152)

Material examined. Holotype ♀ - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 1-15.IX.2012, G. Sabatinelli leg., at light (CPG). 5 Paratypes ♀♀ - same data as HT and 15.VI.2012 (3) (CPG).

Diagnosis. A *Drasterius* Eschscholtz, 1829 allied to *D. sulcatulus* Candèze, 1859 separated for the pronotum just wider than long with very fine and short posterior angles and lighter punctuation.

Description.

Female. Moderately shiny; bicoloured; blackish with more or less expanded ferruginous colour to the posterior angles of pronotum and forming spots very variable in shape and extension on the elytra; antennae and legs yellowish; covered with dense, recumbent, yellow-fulvous pubescence.

Frons convex, anterior margin straight, just protruding above the clypeus, punctures of the same size, deep, simple, with very short intervals.

Antennae exceeding a little the middle of pronotum, slightly serrated from the fourth article on; second and third articles subcylindrical, the second is larger in diameter and a little longer than the third; second and third, taken together, 1.6x longer than the fourth; fourth to tenth subtriangular, the fourth longer than the following, fifth to tenth on average twice longer than wide, the last longer than the penultimate, ellipsoidal.

Pronotum 1.1x wider than long, widest behind the middle and at the apices of posterior angles, convex, abruptly sloping at sides and nearly vertically at base; sides subparallel and very feebly sinuate before the posterior angles, the latter acuminate, just divergent, with a short and well apparent carina directed forwards; lateral margins complete and visible only at basal part in a dorsal view; punctuation uniformly distributed; punctures approximately of the same size, deep, simple, with very short, shiny intervals.

Scutellum roundish, ridged at base, slightly convex, finely punctured.

Elytra 2.2x longer than the pronotum and as wide as it, convex; sides subparallel from the base to behind the middle then gradually tapering to the apices; striae well marked and punctured; interstriae subconvex with slightly rough surface.

Articles of tarsi regularly decreasing in length, simple.

Male unknown.

Size. Length 3.75-4.50 mm; width 1.12-1.46 mm.

Etymology. Dedicated to the collector, G. Sabatinelli.

Drasterius brahminus Candèze, 1859
(Fig. 120)

Material examined. 1 spcm. (♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 15.IX.2011, G. Sabatinelli leg., at light (CPG).

Distribution. India, Pakistan (Platia & Gudenzi, 1997).

***Drasterius collaris* (Candèze, 1859)**

(Figs. 20, 20a)

Material examined. 12 spcm. (♂♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 15.VI.2012, 1-15.IX.2012, G. Sabatinelli leg., at light (CPG).

Aedeagus as in Figs. 20, 20a (length 0.62 mm).

Distribution. India, Nepal, Pakistan (Platia & Gudenzi, 1997).

***Heteroderes sabatinellii* n. sp.**

(Figs. 21, 21a, 80, 114, 153)

Material examined. Holotype ♂ - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG). 1 Paratype ♂ - same data as HT (CPG).

Diagnosis. A species well separated from all the known of the region for the smaller size, it can be compared to *H. jagemanni* n. sp. But it is separated for the lighter colour, posterior angles of pronotum yellowish, and the second and third antennal segments, taken together, much longer than fourth.

Description.

Male. Moderately shiny; entirely dark brown with the apices of posterior angles of pronotum, antennae and legs yellowish; underside ferruginous; covered with very dense, recumbent, yellow-fulvous pubescence.

Frons flat or moderately convex, anterior margin complete, straight, just protruding above the clypeus; punctures of variable size, with very short, shiny intervals or contiguous.

Antennae not reaching the apices of posterior angles of pronotum for about 1.5 articles, slightly serrate from the fourth article on; the second and third article subcylindrical with the second larger in diameter and a little longer than the third; the second and third, taken together, 1.5 x longer than the fourth; fourth to tenth subtriangular, fourth a little longer than following, fifth to tenth on average twice longer than wide, the last one a little longer than the penultimate, subellipsoidal.

Pronotum just longer than wide, widest at the middle and at the apices of posterior angles, convex, abruptly sloping at sides and base; sides subparallel, very slightly sinuate before the posterior angles, the latter acuminate, just divergent at apical extremity, with a short and fine carina running subparallel to the lateral margins, these complete and visible only at the basal third in a dorsal view; punctuation double, uniformly distributed, larger and simple punctures are regularly mixed with very fine punctures with very short, shiny intervals.

Scutellum shield-shaped, ridged at base, moderately convex and finely punctured.

Elytra 2.16-2.20x longer than the pronotum and as wide as it, convex; sides subparallel for about the basal two-thirds of its length then gradually tapering to the apices; striae well marked and punctured; interstriae flat with rough surface.

Fourth article of tarsi with a short and narrow lamella scarcely visible in a dorsal view.

Aedeagus as in Figs. 21, 21a (length 0.87 mm).

Female unknown.

Size. Length 5.00-5.10 mm; width 1.37-1.40 mm.

Etymology. Dedicated to the collector, G. Sabatinelli.

***Heteroderes jagemanni* n. sp.**

(Figs. 22, 22a, 81, 115, 154)

Material examined. Holotype (♂) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 1-15.IX.2012, G. Sabatinelli leg., at light (CPG).

Diagnosis. A species that can be compared to *Heteroderes subtilis* Jagemann, 1946 for the same size and the general shape but it can be separated by the sides of pronotum perfectly parallel and the lateral margins nearly all invisible in a dorsal view.

Description.

Male. Not shiny; entirely blackish with antennae and legs yellowish; covered with dense, short, recumbent, yellowish pubescence.

Frons flat, anterior margin substraight just protruding above the clypeus, punctures of variable diameters, very dense with very short intervals or contiguous.

Antennae not reaching the apices of posterior angles for about one article, slightly serrated from the fourth article on, the second and third articles subcylindrical and subequal in length, taken together, just longer than the fourth; fourth to tenth subtriangular, the fourth longer than the following, 2.4x longer than wide, fifth to tenth on average 2.2x longer than wide, the last one as long as penultimate, subellipsoidal.

Pronotum 1.07x longer than wide, widest at the middle and at the apices of posterior angles, convex, abruptly sloping at sides and nearly vertically at base; sides perfectly parallel, posterior angles acuminate, not divergent, with a short carina parallel to the lateral margin, this complete, visible only at the base in a dorsal view; punctuation uniformly distributed larger and simple punctures are regularly mixed with very fine punctures with very short intervals.

Scutellum quadrangular, ridged at base, slightly convex, very finely punctured.

Elytra 2.2x longer than the pronotum and as wide as it, convex; sides from the base to the middle subparallel then gradually tapering to the apices; striae well marked and punctured; interstriae subconvex with rough surface.

Fourth article of tarsi with a short and narrow lamella scarcely visible in a dorsal view.

Aedeagus as in Figs. 22, 22a (length 1.00 mm).

Female unknown.

Size. Length 6.30 mm; width 1.81 mm.

Etymology. Dedicated to the Czech entomologist Dr. E. Jagemann who described some species within this genus.

Heteroderes curtus n. sp.
(Figs. 23, 23a, 82, 116, 155)

Material examined. Holotype ♂ - Pakistan: Islamabad, Margalla Hills (33°46'N, 73°06'E), 1060 m, 22.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG).

Diagnosis. A species allied to *H. lenis* Candèze, 1859 it can be separated by the shape of pronotum, very elongate with subparallel sides and elytra shorter (only 1.8x longer) compared to pronotum.

Description.

Male. Moderately shiny; entirely brownish with blackish shadings on head and pronotum; antennae and legs yellowish; covered with fine, dense, recumbent, yellow-golden pubescence.

Frons flat, anterior margin regularly arcuate and protruding above the clypeus; punctuation uniformly distributed with larger punctures more or less regularly mixed with very fine punctures.

Antennae not reaching the apices of the posterior angles of pronotum for about 1.5 articles, slightly serrated from the third article on; second article subcylindrical, short, as long as wide, third conical 2.6x longer than wide and 2.6x longer than the second; fourth to tenth subtriangular with the fourth a little longer than the following, on average more than twice longer than wide, the last one a little longer than penultimate, subellipsoidal.

Pronotum 1.37x longer than wide, widest at the apices of the posterior angles, very convex, abruptly sloping at sides and base; sides parallel for about all its length, posterior angles elongate,

acuminate, not divergent, bicarinate; inner carina very short, outer carina longer and directed inside; lateral margins substraight, complete; punctuation uniformly distributed, double; larger punctures are regularly mixed with very fine punctures.

Scutellum quadrangular, ridged at base, slightly convex, very finely punctured.

Elytra 1.8x longer than the pronotum and as wide as it, convex, ovaliform, striae well marked and deeply punctured, interstriae subconvex, very finely punctured.

Fourth article of tarsi with a wide lamella partially visible in a dorsal view.

Aedeagus as in Figs. 23, 23a (length 1.34 mm).

Size. Length 10.60 mm; width 2.62 mm.

Etymology. The name is derived from the very short elytra compared to the pronotal length.

Heteroderes gallagheri Platia & Schimmel, 1997

(Figs. 24, 24a, 113)

Material examined. 1 spcm. (♂) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 15.IX.2011, G. Sabatinelli leg., at light (CPG).

Aedeagus as in Figs. 24, 24a (length 0.82 mm).

Distribution. Arab Emirates, Iran, Oman, Pakistan (Cate, 2007); Afghanistan (Nemeth & Platia, 2014).

Heteroderes sericeus Candèze, 1859

(Figs. 25, 25a, 83, 117)

Material examined. 26 spcm. (♂♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG).

Aedeagus as in Figs. 25, 25a (length 1.46 mm).

Distribution. India (Uttar Pradesh), "Himalaya" (Cate, 2007). New species for Pakistan.

Heteroderes spinosus Candèze, 1890

(Fig. 118)

Material examined. 1 spcm. (♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 15.VI.2011, G. Sabatinelli leg., at light (CPG).

Distribution. India (Bengala) (Schenkling, 1925-27); Pakistan (Akhter *et al.*, 2012).

Subfamily **Dendrometrinae** Gistel, 1848

Tribe **Dendrometrini** Gistel, 1848

Denticollis oculatus n. sp.

(Figs. 26, 26a, 84, 84a, 121, 156)

Material examined. Holotype ♂ - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), m 600, 20.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG). 1 Paratype ♂ - same data as HT, 15.VII.2012 (CPG).

Diagnosis. A large species distinct from all the known species of the genus because of the antennae with a twelfth simple article.

Description.

Male. Very shiny; entirely black with brownish shadings on elytra; covered with fine, recumbent on elytra, semierect on sides of pronotum, yellowish pubescence.

Head with eyes very convex and particularly developed, as wide as the anterior margin of pronotum, frons quadrangular, impressed from the middle to the anterior margin, this thickened at the angles, simple at the middle where it is merged with the clypeus; punctures coarse, deep, umbilicate with variable, shiny intervals to contiguous.

Antennae with twelve articles exceeding by four articles the apices of posterior angles of pronotum, pectinate from the third article on; the second article simple, very small, as long as wide; third to eleventh articles pectinate; the third with a lamella as long as the article, fourth to tenth articles with lamellae longer than the articles, eleventh article with lamella shorter than the article, the twelfth article simple, shorter than the penultimate, subellipsoidal.

Pronotum 1.25x wider than long, widest at the apices of the posterior angles, regularly convex; sides moderately and regularly arcuate, suddenly divaricate at the posterior angles, the latter long, acuminate, strongly divergent; a trace of a short carina; lateral margins hardly distinct, partially obsolete; punctuation not uniformly distributed; punctures deep, simple, very variable in density, on the disc on average with intervals very shiny and larger than their own diameters.

Scutellum quadrangular, ridged at base, sparsely punctured.

Elytra very elongate, 4.2x longer than the pronotum and wider than it, convex; sides subparallel for about the basal two thirds of their length then gradually tapering to the apices; surface densely punctured with striae not clearly distinct.

Anterior rim of prosternum short and truncate.

Aedeagus as in Figs. 26, 26a (length 2.31 mm).

Size. Length 18.6-19.3 mm; width 4.35-4.50 mm.

Etymology. The name is derived from the very convex, developed eyes of the species.

Tribe **Prosternini** Gistel, 1856

Selatosomus whitei (Candèze, 1900)

(Figs. 27, 27a, 85, 157)

Material examined. 1 spcm. (♂) - **Pakistan:** KP, Hazara distr., Kaghan Valley, Tathabaya (34°36'N, 73°26'E), 2200 m, 16.V.1998, M. Lazlo & G. Ronkay leg. (HNHM).

Aedeagus as in Figs. 27, 27a (length 2.25 mm).

Distribution. India: Kashmir "Himalaya" (Cate, 2007). New species for Pakistan.

Subfamily **Elaterinae** Leach, 1815

Tribe **Elaterini** Leach, 1815

Mulsanteus sabatinellii n. sp.

(Figs. 28, 28a, 86, 122, 158)

Material examined. Holotype ♂ - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG).

Diagnosis. A species allied to *M. pokharanus* Schimmel & Tarnawski, 2007 from Nepal for the general shape and colour, it can be separated by the shorter antennae.

Description.

Male. Moderately shiny; entirely dark-brown with antennae and legs ferruginous; covered with dense, long, erect on the antennal articles, semierect on elytra, fulvous pubescence.

Frons convex on vertex, flat before the anterior margin, this complete, straight, touching the clypeus; punctures coarse, umbilicate, with very short, shiny intervals.

Antennae exceeding by one article the apices of posterior angles of pronotum, serrated from the fourth article on; the second and third article extremely small, subequal in length, the second just wider than long, the third obliquely truncate; fourth to tenth articles triangular, the fourth a little longer than the following and twice longer than wide; fifth to seventh less elongate, eighth to tenth slenderer, the last one longer than the penultimate, subellipsoidal, asymmetrically constricted before the apex.

Pronotum as long as wide, widest just before the apices of posterior angles; very convex, abruptly sloping at sides, nearly vertically at base sides from near the base gradually and regularly tapering to apex, converging to the posterior angles before the base, posterior angles long, acuminate slightly converging at the extremities, with an apparent carina directed inside; lateral margins complete and basally visible in a dorsal view; punctuation uniformly distributed, punctures umbilicate with very short, shiny intervals where are irregularly present very fine punctures.

Scutellum shield-shaped, flat, ridged at base, densely punctured.

Elytra 2.6x longer than the pronotum and a little narrower than it, very convex; sides very gradually and regularly tapering from base to the apices; striae well marked and punctured, more superficial towards the apices, interstriae flat, punctured, with rough surface.

Aedeagus as in Figs. 28, 28a (length 1.43 mm).

Female unknown.

Size. Length 11.50 mm; width 3.06 mm.

Etymology. Dedicated to the collector of the species G. Sabatinelli.

Note. The description of this species is possible because the asiatic *Mulsanteus Gozis*, 1875 were recently revised by Schimmel & Tarnawski (2007).

Tribe **Megapenthini** Gurjeva, 1973

Xanthopenthes sabatinellii n. sp.

(Figs. 29, 29a, 123, 159)

Material examined. Holotype ♂ - **Pakistan:** Islamabad, Margalla Hills (33°46'N, 73°06'E), 1060 m, 16.VII.2012, G. Sabatinelli leg., at light (CPG).

Diagnosis. The westernmost species of the genus containing a high number of species from India to the Oriental Region, it could be compared with *X. modestus* (Candèze, 1859) but it is immediately separated for the slenderer body, darker colour, and subtrapezoidal pronotum.

Description.

Male. Moderately shiny; entirely blackish with ferruginous shadings at base of pronotum; antennae and legs yellow-ferruginous; covered with dense, semierect, fulvous pubescence.

Frons convex on vertex, flat at the anterior margin, this complete, arcuate and just protruding above the clypeus; punctures coarse, umbilicate with very short intervals or contiguous.

Antennae exceeding by about two articles the apices of posterior angles of pronotum, moderately serrated from the third article on; the third to tenth article with a mid-longitudinal carina; second article subcylindrical, very short, globous, third article subconical, twice longer than wide and 2.8x longer than the second; fourth to tenth triangular, fourth a little longer than the following and twice longer than wide; fifth to tenth on average twice longer than wide, the last one as long as the penultimate, ellipsoidal.

Pronotum as long as wide, widest at the apices of the posterior angles, very convex; abruptly sloping at sides, nearly vertically at base; sides nearly regularly and gradually narrowing from the base

to the apex; posterior angles acuminate, just divergent at the extremities, bicarinate; carinae short, subequal in length and directed inside; lateral margins complete and visible in a dorsal view in the basal third; punctuation uniformly distributed; punctures superficial, umbilicate with very short, shagreened intervals.

Scutellum shield-shaped, with subparallel sides in the first half then narrowing to the apex, flat, densely punctured.

Elytra 2.55x longer than the pronotum and as wide as it, convex; sides subparallel in the first half then very gradually tapering to the apices; striae well marked and punctured, gradually more superficial towards the apices; interstriae flat with rough surface.

Aedeagus as in Figs. 29, 29a (length 1.62 mm).

Female unknown.

Size. Length 9.35 mm; width 2.37 mm.

Etymology. Dedicated to the collector, G. Sabatinelli.

Tribe **Dicrepidiini** Thomson, 1858

Adiaphorus sabatinellii n. sp.

(Figs. 30, 30a, 87, 160)

Material examined. Holotype ♂ - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG).

Diagnosis. This species can be compared to *Adiaphorus elevatus* Vats & Chauhan, 1992 from India (Uttar Pradesh) but it is easily separated by the frons without mid-longitudinal elevation.

Description.

Male. Entirely ferruginous with dense, long, semierect particularly on elytra, yellow-fulvous pubescence.

Frons quadrangular, convex with anterior margin subarcuate protruding above the clypeus; punctures coarse, deep, contiguous.

Antennae exceeding by two articles the apices of posterior angles of pronotum, moderately serrated from the third article on; second article small, globous, the third conical, 1.8x longer than wide and a little shorter than fourth; fourth to sixth triangular, twice longer than wide, seventh to tenth slenderer, subtriangular, 2.4x longer than wide, the last one longer than the penultimate, subellipsoidal.

Pronotum as long as wide, widest at the apices of the posterior angles, strongly convex from the middle to the anterior margin, abruptly sloping at sides, more gradually at base with a trace of mid-longitudinal impressed line; sides from behind the middle very gradually and regularly narrowing to the apex and backwards to the posterior angles, the latter acuminate, just divergent at the apical extremities, with a short carina directed inside; lateral margins complete, visible in a dorsal view only in the basal third; punctuation uniformly distributed, punctures deep, simple or slightly umbilicate, with very short intervals or contiguous.

Scutellum shield shaped, ridged at base, moderately convex, sparsely punctured.

Elytra 2.9x longer than the pronotum and as wide as it, convex; sides subparallel from the base to the middle then very gradually narrowing to the apices; striae well marked and deeply punctured, interstriae flat with rough surface.

Articles of tarsi, first with a very short, second and third with a long lamella.

Aedeagus as in Figs. 30, 30a (length 1.50 mm).

Female unknown.

Size. Length 10.00 mm; width 2.55 mm.

Etymology. The species is dedicated to the collector, G. Sabatinelli.

Tribe **Melanotini** Candèze, 1859

Melanotus gorodinskii Platia, 2005
(Figs. 52, 88, 161)

Material examined. 1 spcm. (♀) - **Pakistan:** AJK, Rawalakot, 30.VIII.2012, G. Sabatinelli leg., at light (CPG).

Bursa copulatrix sclerified as in Fig. 52.

Distribution. India (Himachal Pradesh) (Platia, 2005). New species for Pakistan.

Melanotus hirticornis (Herbst, 1806)
(Figs. 31, 31a, 89, 162)

Material examined. 10 spcm. (♂♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, 15.VI.2012, 15.VII.2012, G. Sabatinelli leg., at light (CPG).

Aedeagus as in Figs. 31, 31a (length 2.31 mm).

Distribution. Nepal, China (Guizhou, Hainan, Sichuan, Yunnan), Oriental Region (Cate, 2007); India (Assam) (Platia & Schimmel, 2001); Pakistan (Akhter *et al.*, 2011).

Melanotus loebli Platia & Schimmel, 2001
(Figs. 32, 32a, 53, 163)

Material examined. 7 spcm. (4♂♂, 3♀♀) - **Pakistan:** AJK, Rawalakot Kotla, 7.VI.2012, G. Sabatinelli leg., at light; KP, Hazara distr., Kaghan Valley, Naran, 21.VII.2012, G. Sabatinelli leg., at light (CPG).

Aedeagus as in Figs. 32, 32a (length 1.62 mm).

Bursa copulatrix sclerified as in Fig. 53.

Distribution. Pakistan, India (Cate, 2007).

Melanotus opicus Candèze, 1900
(Figs. 33, 33a, 164)

Material examined. 2 spcm. (♂) - **Pakistan:** KP, Hazara distr., Kaghan Valley, Naran, 21.VII.2012, G. Sabatinelli leg., at light (CPG).

Aedeagus as in Figs. 33, 33a (length 1.75 mm).

Distribution. India (Kashmir), Pakistan (Cate, 2007).

Melanotus punctosinus Cate, Platia & Schimmel, 2002
(Figs. 34, 34a, 54, 167)

Material examined. 1 spcm. (♂) - **Pakistan:** Punjab Prov., Chakwal distr., Chakwal, 6.VI.2008, M. Atique leg. (CRG). 4 spcm. (3♂♂, 1♀) - Sindh Prov., Hyderabad distr., Hyderabad, 26.VIII.2007, M. Atique leg.; Sindh Prov., Tharparkar distr., Mithi, 19.VII.2008, M. Atique leg. (CPG; CRG).

Aedeagus as in Figs. 34, 34a (length 1.62 mm). Bursa copulatrix sclerified as in Fig. 54.

Distribution. Iran, Afghanistan (Cate, 2007). New species for Pakistan.

Melanotus punctosus (Walker, 1854)
(Figs. 35, 35a, 55, 166)

Material examined. 130 spcm. (♂♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-

20.VII.2011, 15.VIII.2011, 15.VI.2012, 15.VII.2012, 1-15.IX.2012, G. Sabatinelli leg., at light; Islamabad, Margalla Hills (33°46'N, 73°06'E), 1060 m, 22.VI.-20.VII.2011, 16.VII.2012, G. Sabatinelli leg., at light; AJK, Muzaffarabad, 15.VIII.2012, G. Sabatinelli leg., at light (CPG); KP Chitral distr., Chitral (35°54'N, 71°48'E), 1630 m, 25.VI.2011, G. Sabatinelli leg., at light (CPG).
Aedeagus as in Figs. 35, 35a (length 1.93 mm). Bursa copulatrix sclerified as in Fig. 55.

Distribution. Pakistan, Nepal, India, Oriental Region (Cate, 2007).

Melanotus riesei Platia & Schimmel, 2001
(Figs. 36, 36a, 165)

Material examined. 1 spcm. (♂) - **Pakistan:** KP, Hazara distr., Kaghan Valley, Naran, 21.VII.2012, G. Sabatinelli leg., at light (CPG).
Aedeagus as in Figs. 36, 36a (length 1.43 mm).

Distribution. Pakistan (Cate, 2007).

Melanotus villosus (Geoffroy, 1785)
(Figs. 37, 37a, 56, 90, 90a)

Material examined. 3 spcm. (2♂♂, 1♀) - **Pakistan:** AJK, Rawalakot-Cokot, 26.IV.2011, S. Ziani leg.; AJK, Rawalakot, Banjosa Lake, 25.IV.2011, S. Ziani leg. (CPG).
Aedeagus as in Figs. 37, 37a (length 2.00 mm). Bursa copulatrix sclerified as in Fig. 56.

Distribution. Europe, North Africa (Algeria, Morocco), Turkey, Iran, China (Yunnan, Manchuria) (Cate, 2007) (Shaanxi, new record in coll. Platia). New species for Pakistan.

Priopus vafer (Erichson, 1841)
(Figs. 38, 38a, 91, 124, 168)

Material examined. 10 spcm. (♂♀) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, 15.VI.2012, 15.VII.2012, G. Sabatinelli leg., at light (CPG).
Aedeagus as in Figs. 38, 38a (length 1.75 mm).

Distribution. India (Sikkim, Darjeeling), China (Fujian, Hainan), Oriental Region (Cate, 2007). New species for Pakistan.

Subfamily **Cardiophorinae** Candèze, 1860

Cardiophorus doggeri Vats & Chauhan, 1991
(Figs. 39, 39a, 92)

Material examined. 2 spcm. (♂) - **Pakistan:** KP, Barseen (35°21'N, 73°12'E), 900 m, 10.VII.1998, G. Csorba & L. Ronkay leg., at light (CPG; HNHM).
Aedeagus as in Figs. 39, 39a (length 1.12 mm).

Distribution. India (Himachal Pradesh) (Cate, 2007). New species for Pakistan.

Dicronychus zianii n. sp.
(Figs. 40, 40a, 93, 169)

Material examined. Holotype ♂ - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 20.VI.-20.VII.2011, G. Sabatinelli leg., at light (CPG).

Diagnosis. Extremely similar in the general appearance, size and colour to *D. unicus* (Vats & Chauhan, 1991) it can be separated by the denser punctures on the head but a sure identification is possible only comparing the totally different and very peculiar male genitalia in the new species.

Description.

Male. Shiny; entirely black-piceous with antennae and tarsi yellowish, femora and tibiae ferruginous; covered with dense, recumbent, yellowish pubescence.

Frons convex on vertex, flat at the anterior margin, the latter moderately arcuate, just protruding above the clypeus, punctures of variable diameters more or less regularly mixed with very short, shiny intervals.

Antennae not reaching for about two articles the apices of the posterior angles of pronotum, moderately serrated from the third article; the second article subcylindrical, twice longer than wide, third to tenth subtriangular, on average twice longer than wide, the last one as long as the penultimate, ellipsoidal and asymmetrically constricted at apex.

Pronotum as long as wide, widest at the middle, very convex, abruptly sloping at sides and base; sides regularly arcuate, just sinuate before the posterior angles, the latter short, acuminate, not divergent, with a short carina directed forwards; lateral suture-like complete, not visible in a dorsal view; punctuation uniformly distributed, punctures of variable diameters, simple, irregularly mixed with variable and shiny intervals on average smaller than their own diameters.

Scutellum heart-shaped, as long as wide, impressed at the middle, very finely punctured.

Elytra 2.37x longer than the pronotum and as wide as it, convex; sides ovaliform, striae well marked and punctured; interstriae subconvex, very finely punctured.

Claws deeply dentate on the first half.

Aedeagus as in Figs. 40, 40a (length 1.28 mm).

Female unknown.

Size. Length 7.80 mm; width 2.40 mm.

Etymology. Dedicated to my entomologist friend S. Ziani, specialist in coprophagous Scarabaeoidea, who collected interesting species in Pakistan.

***Dicronychus eximius* (Candèze, 1860) (comb. n.)**

(Figs. 41, 41a, 57, 57a, 170)

Cardiophorus eximius Candèze, 1860

Material examined. 4 spcm. (2♂♂, 2♀♀) - **Pakistan:** KP, Valley of Indus, Barseen, Motel Barseen, 1100 m, 11.VIII.2001, B. Benedek & G. Ronkay leg.; KP, Barseen (35°21'N, 73°12'E), 900 m, 10.VII.1998, G. Csorba & L. Ronkay leg., at light; Punjab, Bhakar, 20.V.2008, M. Atique leg. (CPG; CRG; HNMH).

Aedeagus as in Figs. 41, 41a (length 0.92 mm). Bursa copulatrix sclerified as in Figs. 57, 57a.

The species is transferred into the genus *Dicronychus* Brullé, 1832 for the presence of dentate claws.

Distribution. Afghanistan, Pakistan, Nepal, India (Sikkim, Darjeeling) (Cate, 2007).

***Dicronychus unicus* (Vats & Chauhan, 1991) (comb. n.)**

(Figs. 42, 42a, 94, 171)

Cardiophorus unicus Vats & Chauhan, 1991

Material examined. 1 spcm. (♂) - **Pakistan:** Islamabad, Sect. 7 (33°43'N, 73°03'E), 600 m, 1-15.IX.2012, G. Sabatinelli leg., at light (CPG).

Aedeagus as in Figs. 42, 42a (length 1.22 mm).

The species is transferred into the genus *Dicronychus* Brullé, 1832 for the presence of dentate claws.

Distribution. India (Uttar Pradesh) (Cate, 2007). New species for Pakistan.

***Craspedostethus ronkayi* n. sp.**

(Figs. 43, 43a, 95, 125, 172)

Material examined. Holotype ♂ - **Pakistan:** KP, Chalt (36°15'N, 74°20'E), 1850 m, 11.VII.1998, G. Csorba & L. Ronkay leg., at light (HNHM). 9 Paratypes ♂♂ - same data as HT; KP, Barseen (35°21'N, 73°12'E), 900 m, 10.VII.1998, G. Csorba & L. Ronkay leg., at light; KP, Barseen, Motel Barseen, 1100 m, 11.VIII.2001, B. Benedek & G. Ronkay leg., at light (CPG; HNHM).

Diagnosis. This species, for the moment the easternmost known of the genus, can be compared to *C. hirticollis* Nemeth & Platia, 2014 from Afghanistan but is separated by the light colour of body, shorter antennae, and shorter and partially erect pubescence.

Description.

Male. Moderately shiny; entirely yellow-ferruginous with darkened shadings at base of pronotum, elytra, and around the scutellum; covered with dense, long, partially erect, fulvous pubescence.

Frons flat, anterior margin moderately thickened, arcuate, just protruding above the clypeus; punctures of double size, larger punctures are more or less regularly mixed with very fine ones, with short, shiny intervals.

Antennae not reaching the apices of posterior angles of pronotum, slightly serrate from the fourth article on; second article subcylindrical, third subconical, subequal in length, taken together, 1.4x longer than the fourth; fourth to tenth subtriangular, on average less than twice longer than wide, the last one longer than the penultimate, subellipsoidal.

Pronotum 1.1x wider than long and widest at the middle, regularly convex, abruptly sloping at sides and base, sides arcuate, slightly sinuate before the posterior angles, the latter short, truncate, slightly or not divergent at the extremity, with a fine carina directed forward; punctuation double; larger, deep and simple punctures are regularly mixed with very fine ones, with very short, shiny intervals.

Scutellum heart-shaped, just wider than long, slightly emarginate at the middle of base, impressed, with very fine punctures.

Elytra 2.3-2.4x longer than the pronotum and as wide as it, convex; sides subparallel in the first half then regularly tapering to the apices; striae well marked and deeply punctured; interstriae subconvex, very finely punctured.

Claws simple.

Aedeagus as in Figs. 43, 43a (length 0.72 mm).

Female unknown.

Size. Length 5.30-6.10 mm; width 1.68-2.00 mm.

Etymology. Dedicated to the Hungarian lepidopterologist L. Ronkay, one of the collectors.

Acknowledgements

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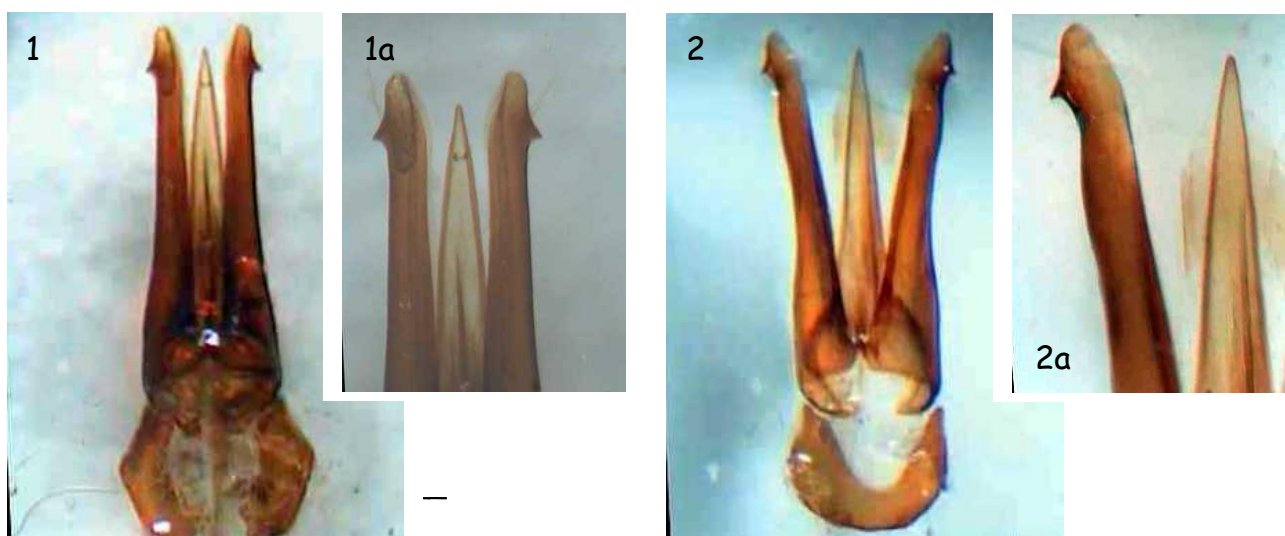
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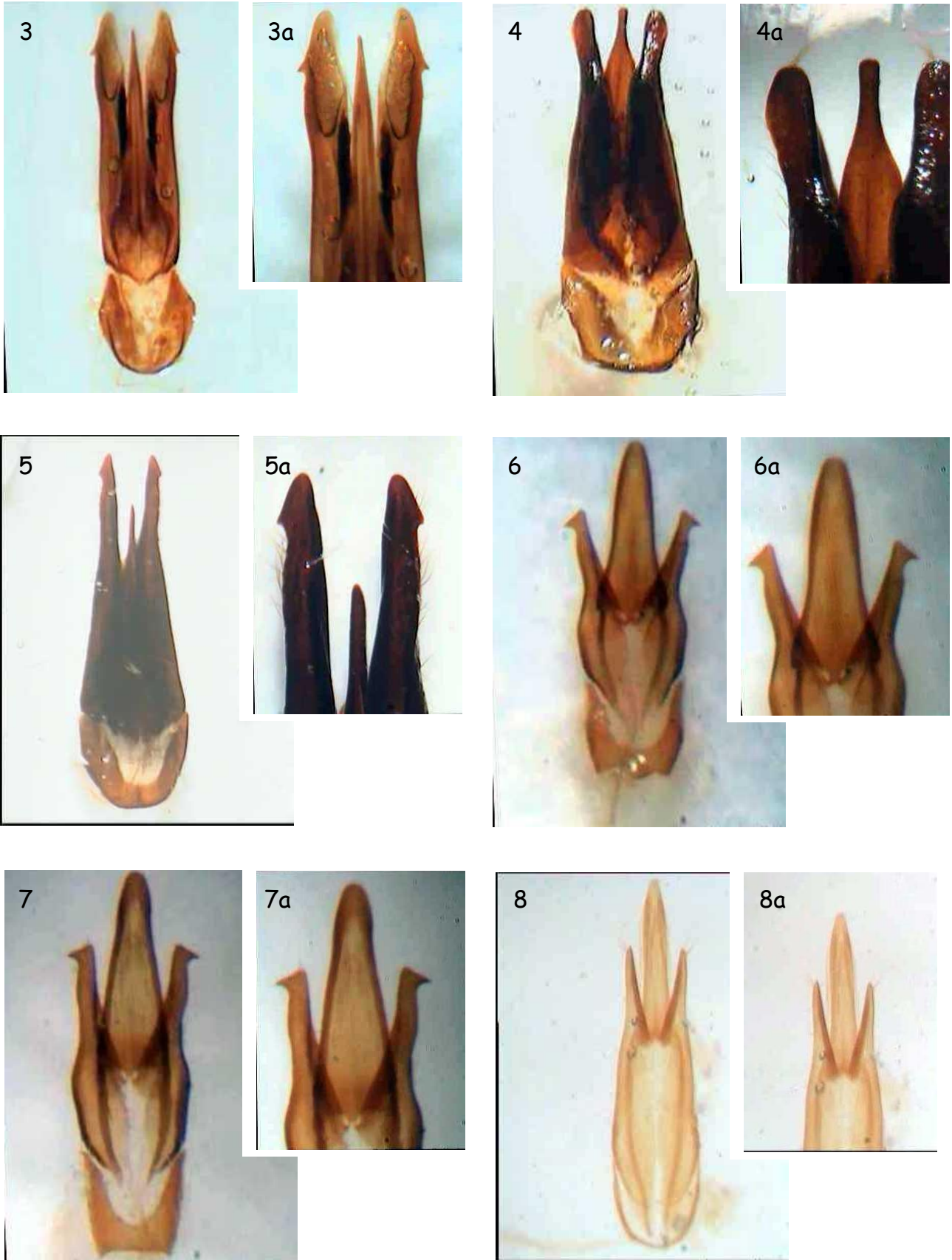
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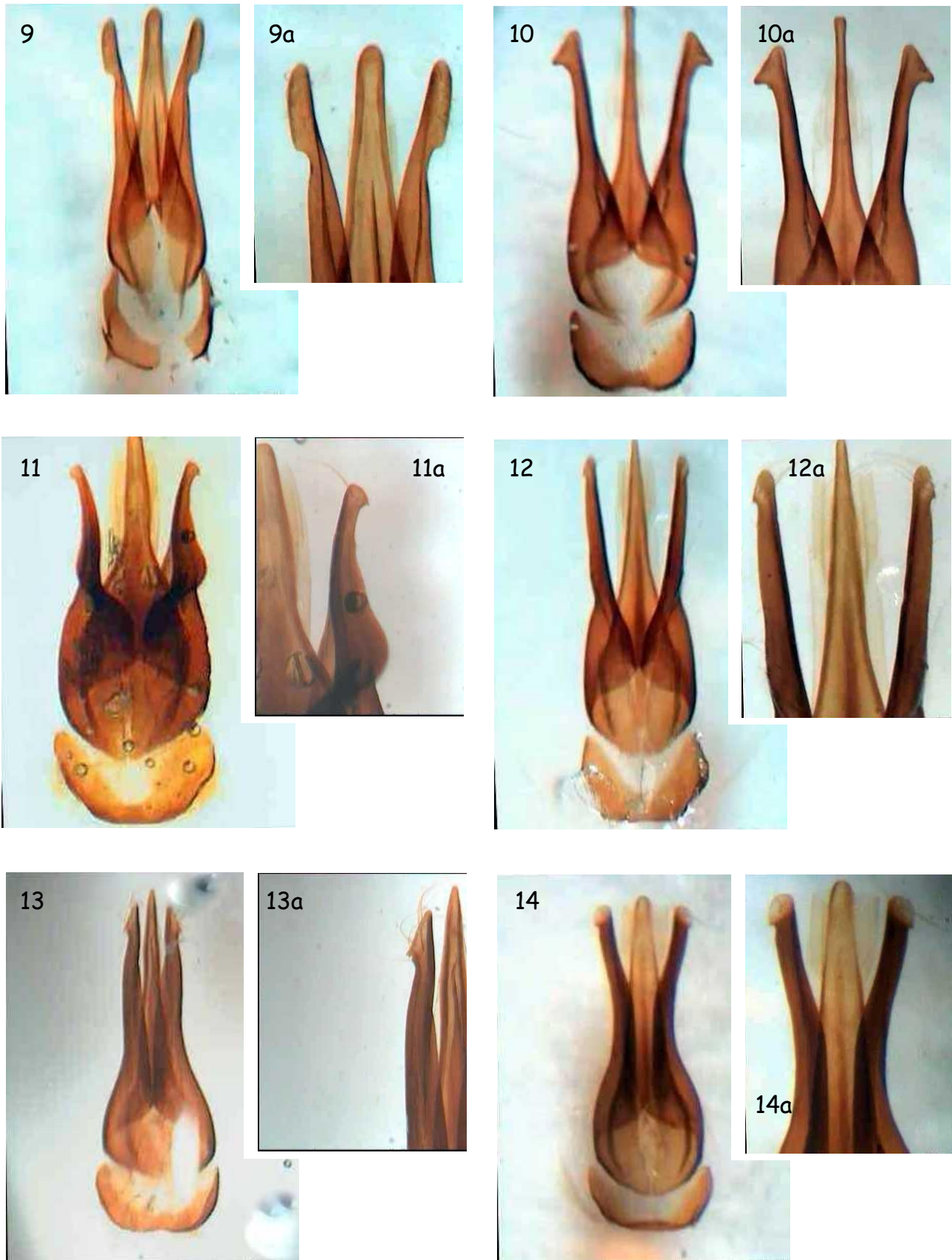
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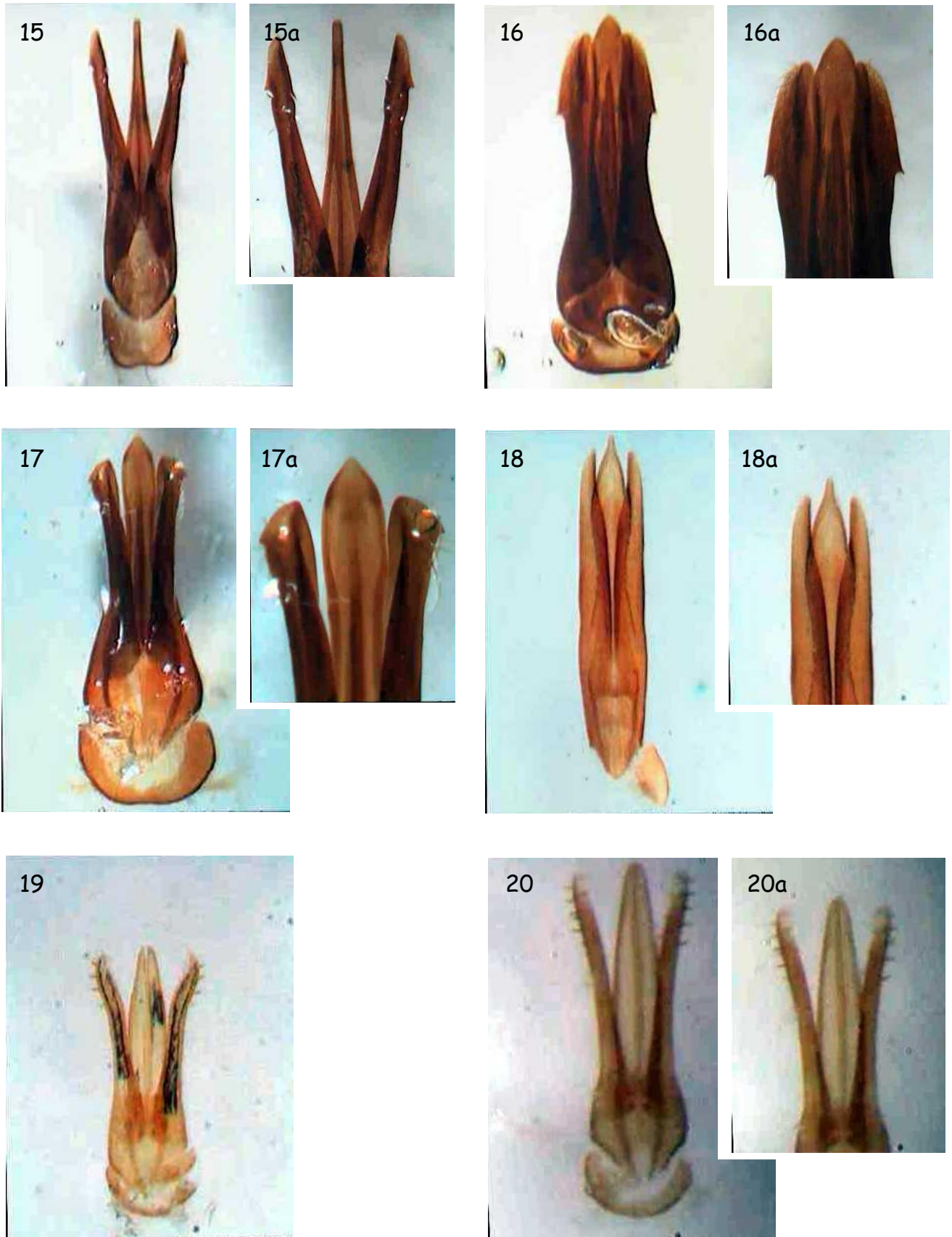
Figs. 1-2.- Male genitalia in dorsal view. **1, 1a.-** *Lacon kurukshetrensis* Vats & Kashyap, 1992. **2, 2a.-** *Lacon modestus* (Boisduval, 1835).



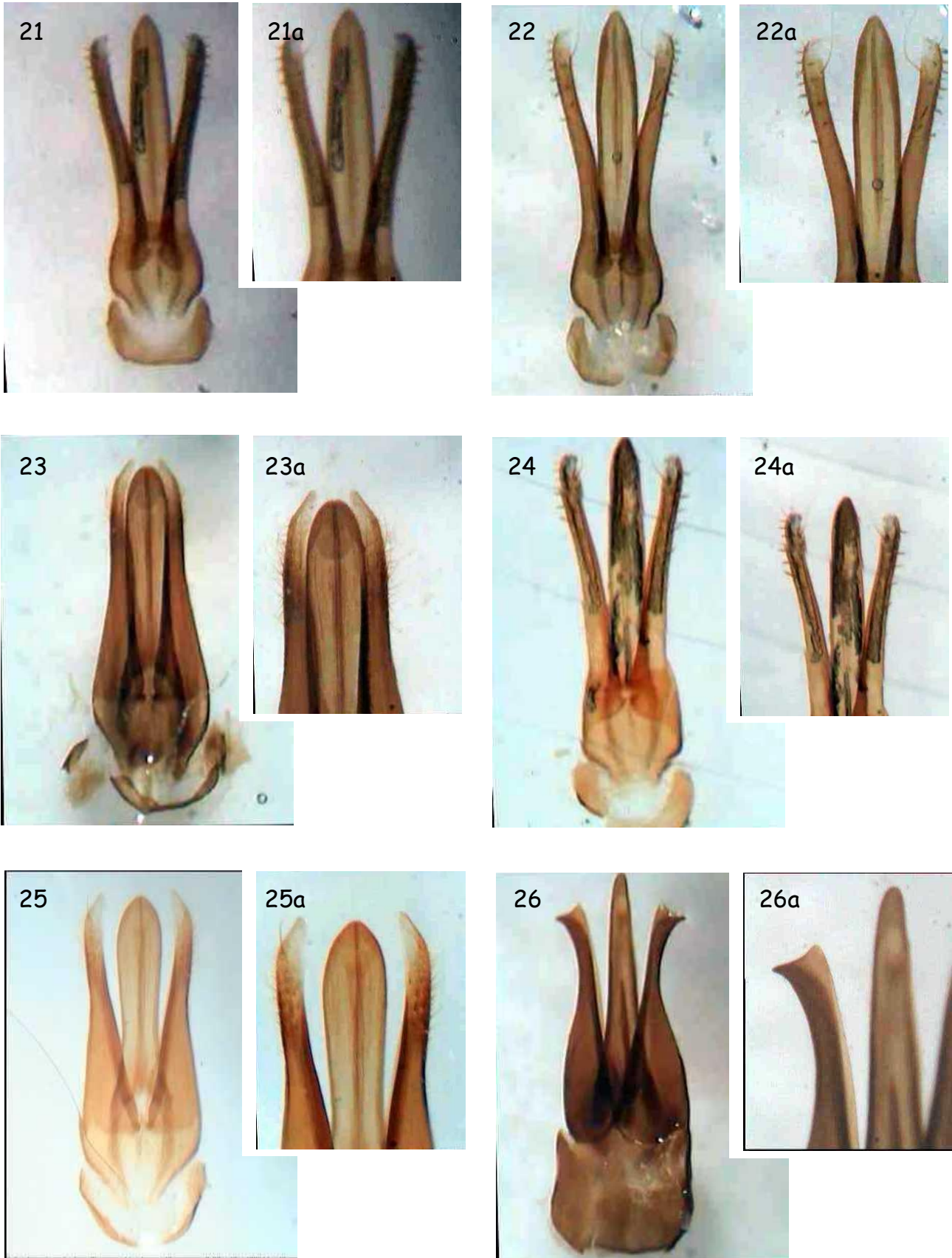
Figs. 3-8.- Male genitalia in dorsal view. 3, 3a.- *Lacon monticola* (Candèze, 1897). 4, 4a.- *Lanelater bipunctatus* (Candèze, 1857). 5, 5a.- *Lanelater pakistanicus* n. sp. 6, 6a.- *Adelocera sabatinellii* n. sp. 7, 7a.- *Adelocera islamabadensis* n. sp. 8, 8a.- *Adelocera kundlanensis* n. sp.



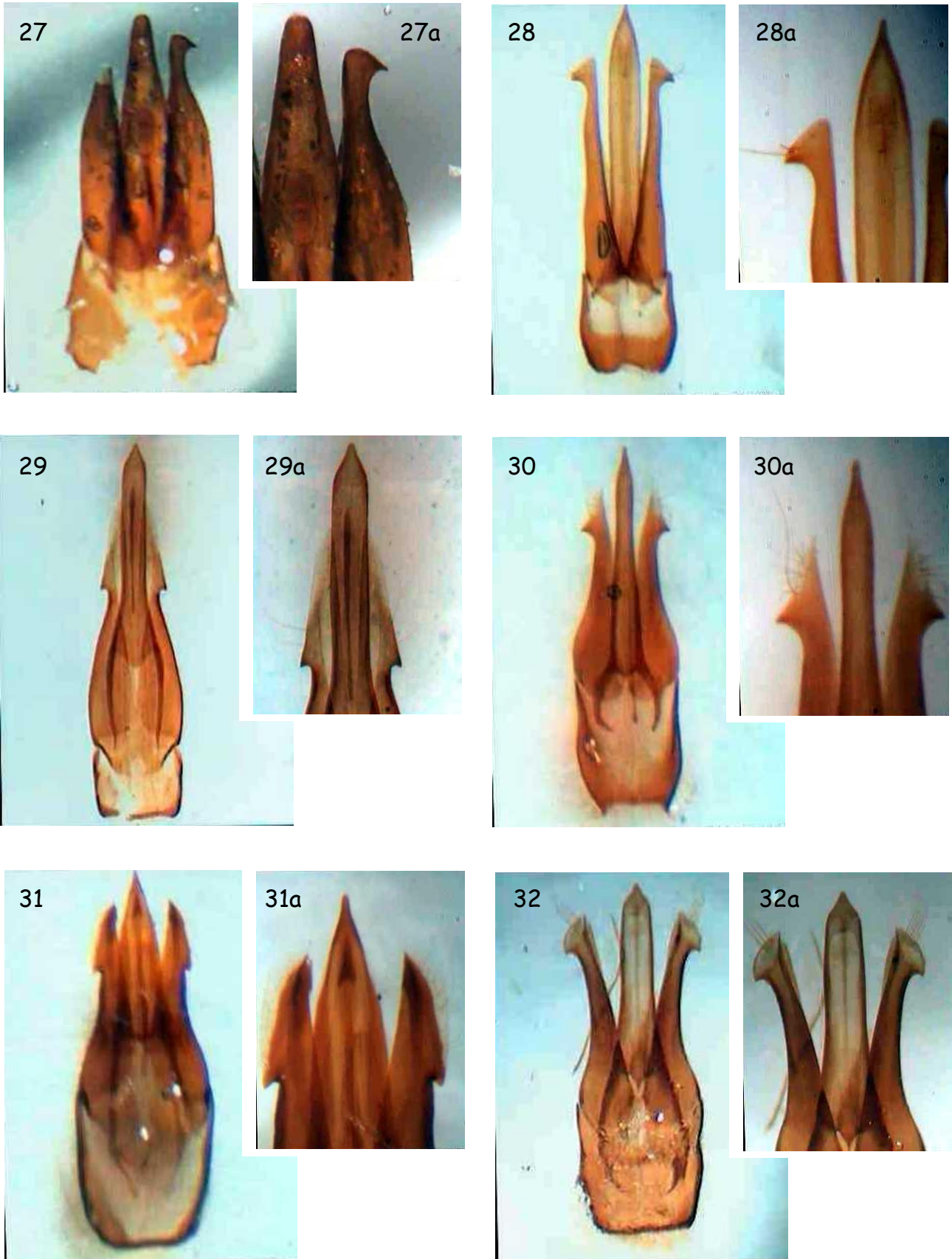
Figs. 9-14.- Male genitalia in dorsal view. **9, 9a.-** *Adelocera foveatus* Vats & Kashyap, 1992. **10, 10a.-** *Agrypnus argentosquamosus* Vats & Kashyap, 1992. **11, 11a.-** *Agrypnus consobrinus* (Candèze, 1857). **12, 12a.-** *Agrypnus ellipticus* (Candèze, 1857). **13, 13a.-** *Agrypnus piger* (Candèze, 1889). **14-14a.-** *Agrypnus transversus* (Candèze, 1857).



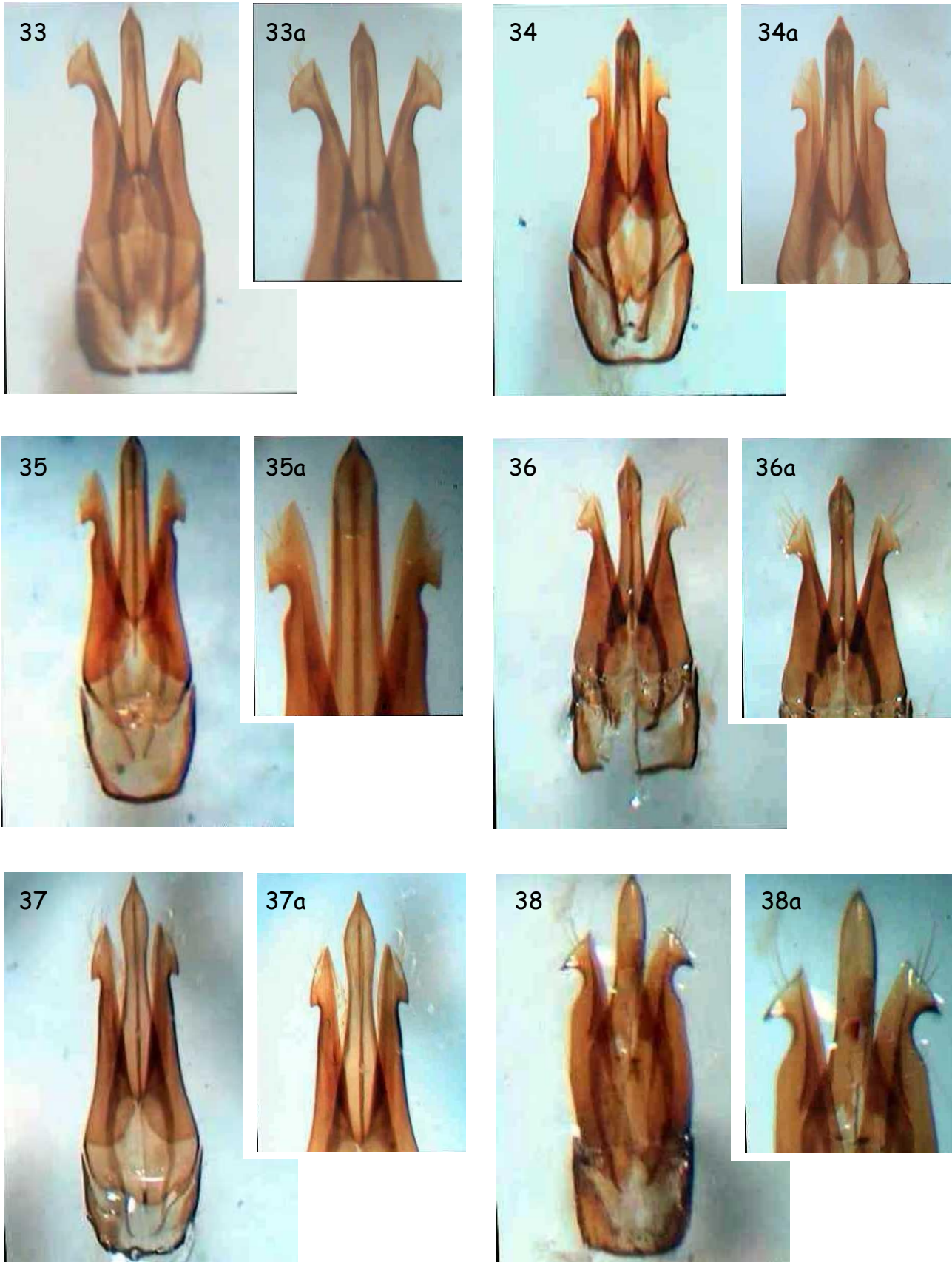
Figs. 15-20. - Male genitalia in dorsal view. **15, 15a.**- *Agrypnus truncatus* (Herbst, 1806). **16, 16a.**- *Compsolacon cashmiriensis* Della Beffa, 1931. **17, 17a.**- *Compsolacon tuberosus* (Vats & Kashyap, 1992). **18, 18a.**- *Octocryptus babaulti* Fleutiaux, 1944. **19.**- *Aeoloides hrebalyi* n. sp. **20-20a.**- *Drasterius collaris* Candèze, 1859.



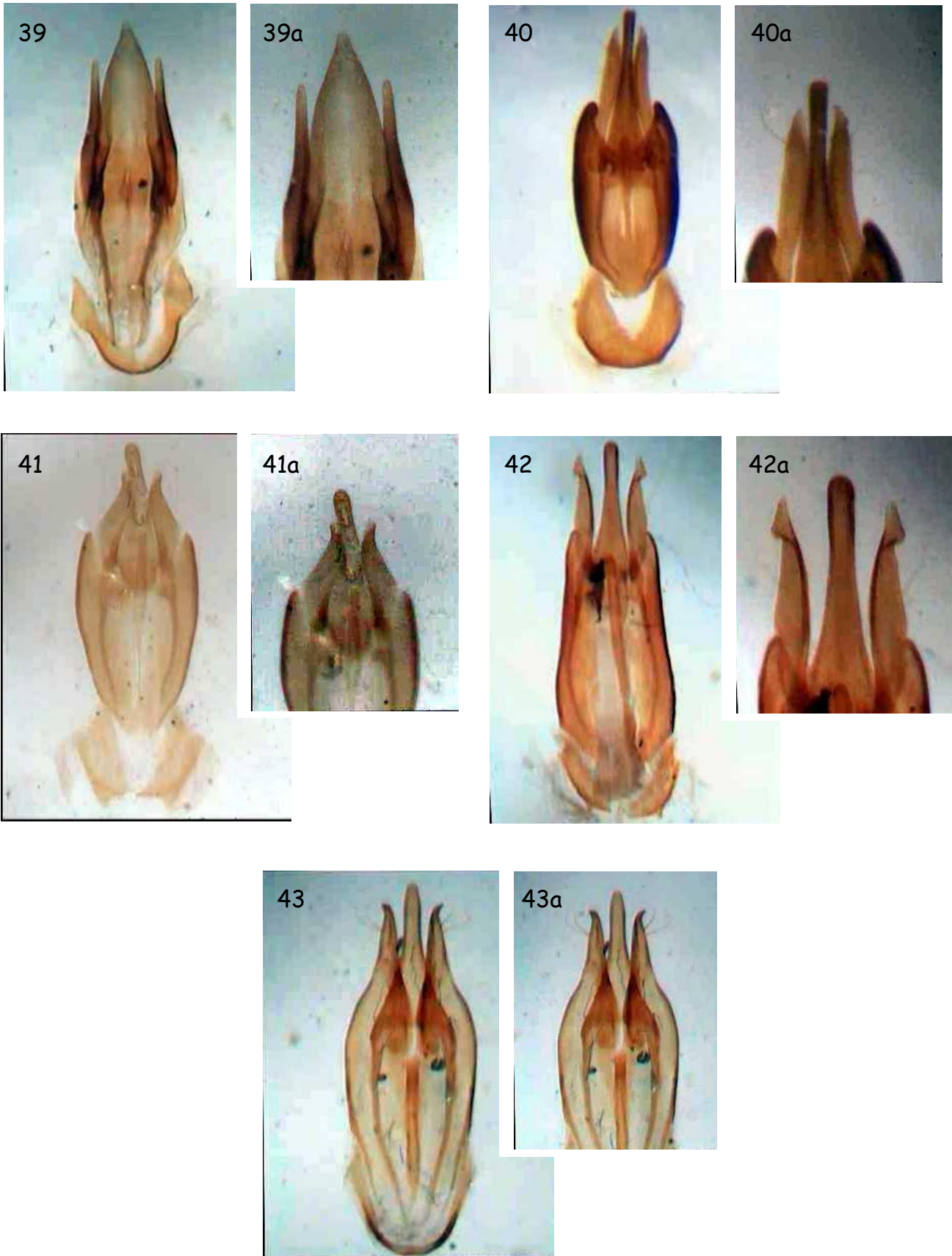
Figs. 21-26.- Male genitalia in dorsal view. 21, 21a.- *Heteroderes sabinellii* n. sp.. 22, 22a.- *Heteroderes jagemanni* n. sp. 23, 23a.- *Heteroderes curtus* n. sp. 24, 24a.- *Heteroderes gallagheri* Platia & Schimmel, 1997. 25, 25a.- *Heteroderes sericeus* Candèze, 1859. 26, 26a.- *Denticollis oculatus* n. sp.



Figs. 27-32. - Male genitalia in dorsal view. **27, 27a.** - *Selatosomus whitei* (Candèze, 1900). **28, 28a.** - *Mulsanteus sabatinellii* n. sp. **29, 29a.** - *Xanthopenthes sabatinellii* n. sp. **30, 30a.** - *Adiaphorus sabatinellii* n. sp. **31, 31a.** - *Melanotus hirticornis* (Herbst, 1806). **32, 32a.** - *Melanotus loebli* Platia & Schimmel, 2001.



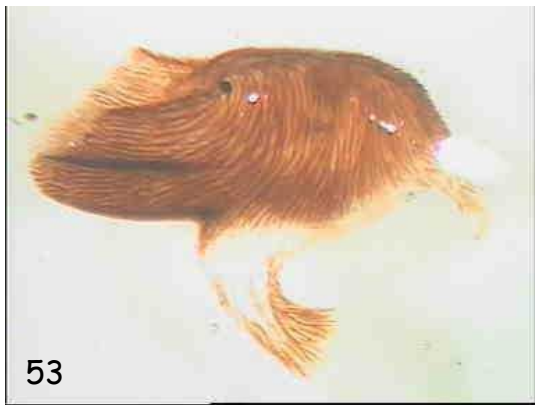
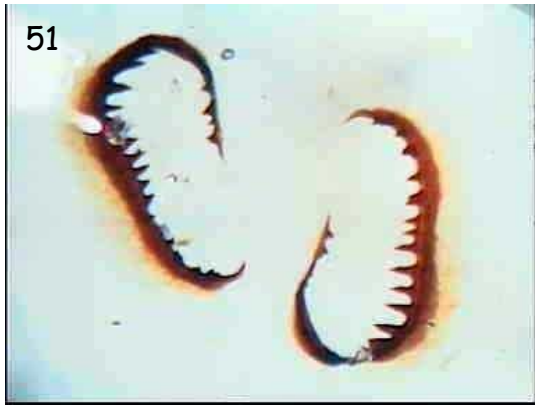
Figs. 33-38. - Male genitalia in dorsal view. **33, 33a.** - *Melanotus opicus* Candèze, 1900. **34, 34a.** - *Melanotus punctosinus* Cate, Platia & Schimmel, 2002. **35, 35a.** - *Melanotus punctosus* (Walker, 1854). **36, 36a.** - *Melanotus riesei* Platia & Schimmel, 2001. **37, 37a.** - *Melanotus villosus* (Geoffroy, 1785). **38, 38a.** - *Priopus vafer* (Erichson, 1841).



Figs. 39-43. - Male genitalia in dorsal view. **39, 39a.** - *Cardiophorus doggeri* Vats & Chauhan, 1991. **40, 40a.** - *Dicronychus zianii* n. sp. **41, 41a.** - *Dicronychus eximius* (Candèze, 1860). **42, 42a.** - *Dicronychus unicus* (Vats & Chauhan, 1991). **43, 43a.** - *Craspedostethus ronkayi* n. sp.



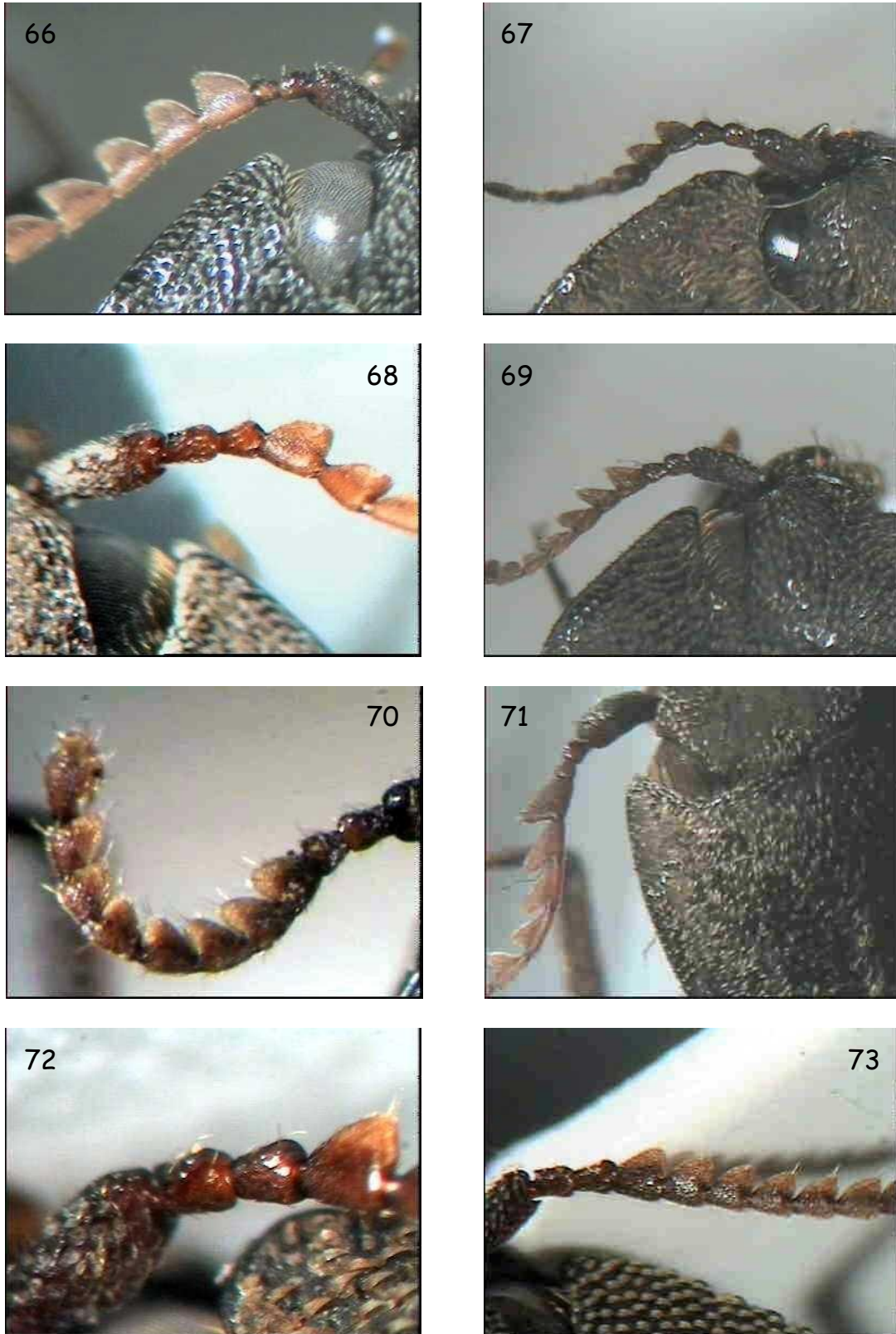
Figs. 44-50.- Sclerites of bursa copulatrix. 44.- *Lacon brachypterus* n. sp. 45.- *Lacon monticola* (Candèze, 1897). 46, 46a.- *Lanelater sabinellii* n. sp. 47.- *Lanelater pakistanicus* n. sp. 48.- *Agrypnus argentosquamosus* Vats & Kashyap, 1992. 49.- *Agrypnus piger* (Candèze, 1889). 50.- *Compsolacon triticumunis* (Vats & Kashyap, 1992).



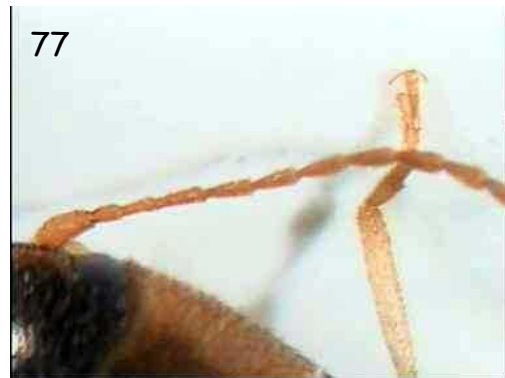
Figs. 51-57.- Sclerites of bursa copulatrix. **51.-** *Calais afghanicus* (Chassain, 1991). **52.-** *Melanotus gorodinskii* Platia, 2005; **53.-** *Melanotus loebli* Platia & Schimmel, 2001. **54.-** *Melanotus punctosinus* Cate, Platia & Schimmel, 2002. **55.-** *Melanotus punctosus* (Walker, 1854). **56.-** *M. villosus* (Geoffroy, 1785). **57, 57a.-** *Dicronychus eximius* (Candèze, 1860).



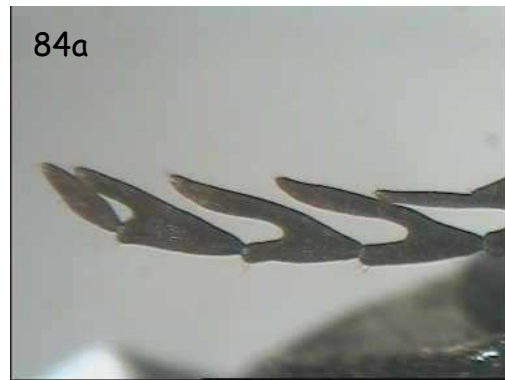
Figs. 58-65. - First or last articles of antennae. **58.** - *Lacon brachypterus* n. sp. **59.** - *Lanelater sabinellii* n. sp. **60, 60a.** - *Lanelater pakistanicus* n. sp. ♂♀. **61.** - *Adelocera sabinellii* n. sp. ♀. **62.** - *Adelocera islamabadensis* n. sp. **63.** - *Adelocera kundlanensis* n. sp. **64.** - *Adelocera afghana* Platia & Gudenzi, 2002, ♀. **65.** - *Adelocera foveatus* Vats & Kashyap, 1992.



Figs. 66-73. - First or last articles of antennae. **66.** - *Agrypnus argentosquamosus* Vats & Kashyap, 1992. **67.** - *Agrypnus consobrinus* (Candèze, 1857). **68.** - *Agrypnus ellipticus* (Candèze, 1857). **69.** - *Agrypnus piger* (Candèze, 1889). **70.** - *Agrypnus transversus* (Candèze, 1857). **71.** - *Agrypnus truncatus* (Herbst, 1806). **72.** - *Compsolacon triticumunis* (Vats & Kashyap, 1992) ♀. **73.** - *Compsolacon tuberosus* (Vats & Kashyap, 1992).



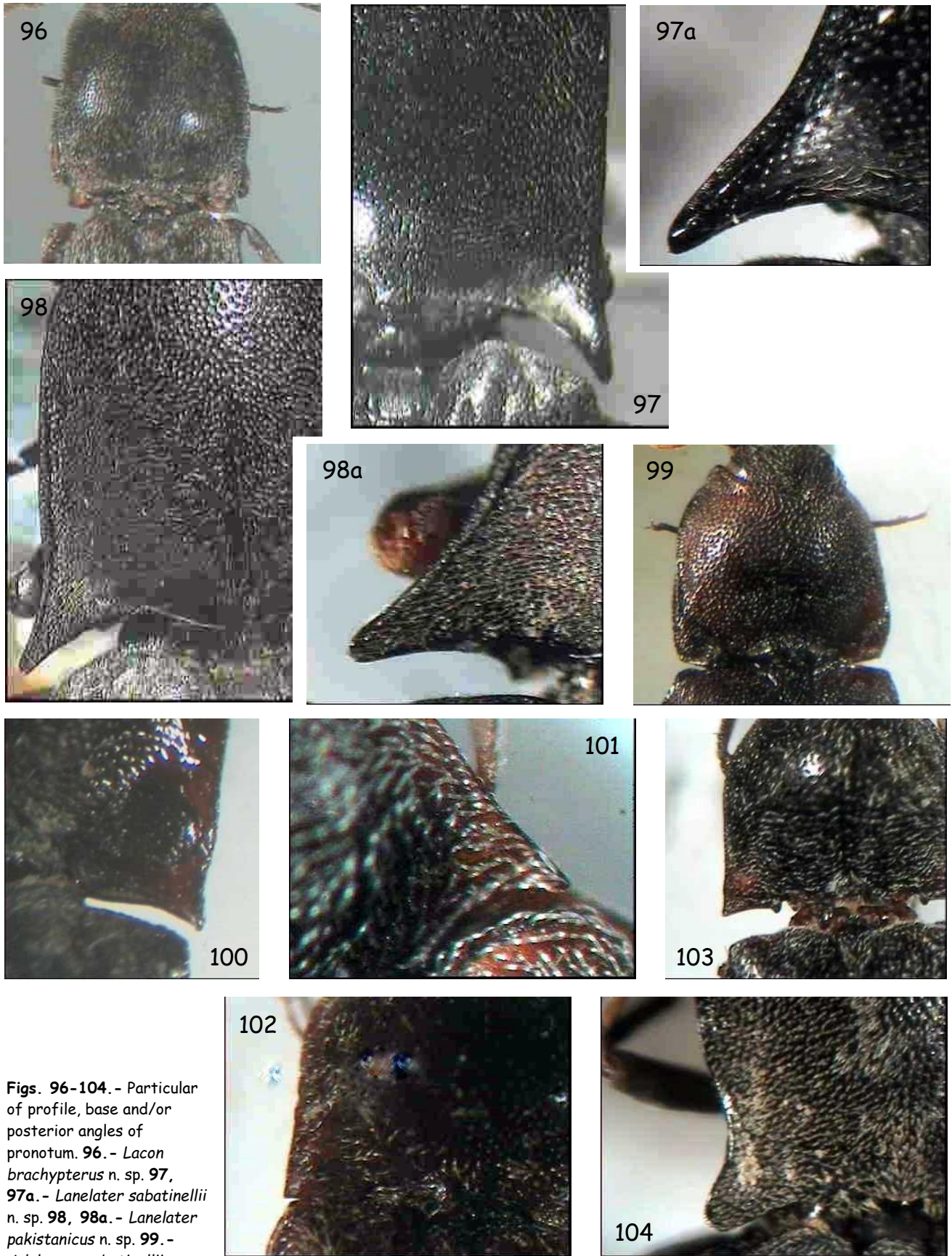
Figs. 74-81. - First or last articles of antennae. **74.** - *Octocryptus babaulti* Fleutiaux, 1944. **75.** - *Calais afghanicus* (Chassain, 1991) ♀. **76.** - *Aeoloides hrebalyi* n. sp. **77.** - *Conoderus aeolodermoides* n. sp., ♀. **78.** - *Conoderus nigromaculosus* Vats & Chauhan, 1992. **79.** - *Drasterius sabatinellii* n. sp. **80.** - *Heteroderes sabatinellii* n. sp. **81.** - *Heteroderes jagemanni* n. sp.



Figs. 82-88. - First or last articles of antennae. **82.**-*Heteroderes curtus* n. sp. **83.**- *Heteroderes sericeus* Candèze, 1859. **84, 84a.**- *Denticollis oculus* n. sp. **85.**- *Selatosomus whitei* (Candèze, 1900). **86.**- *Mulsanteus sabatinellii* n. sp. **87.**- *Adiaphorus sabatinellii* n. sp. **88.**- *Melanotus gorodinskii* Platia, 2005.



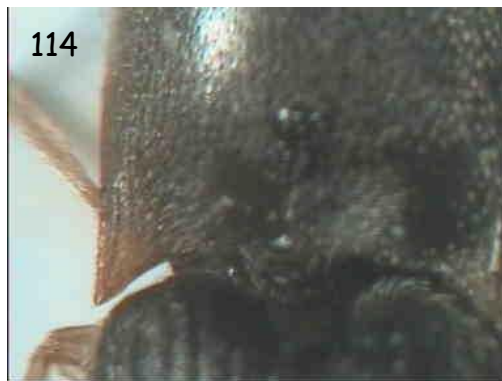
Figs. 89-95.- First or last articles of antennae. 89.- *Melanotus hirticornis* (Herbst, 1806). 90, 90a.- *Melanotus villosus* (Geoffroy, 1785), ♂♀. 91.- *Priopus vafer* (Erichson, 1841). 92.- *Cardiophorus doggeri* Vats & Chauhan, 1991. 93.- *Dicronychus zianii* n. sp. 94.- *Dicronychus unicus* (Vats & Chauhan, 1991). 95.- *Craspedostethus ronkayi* n. sp.



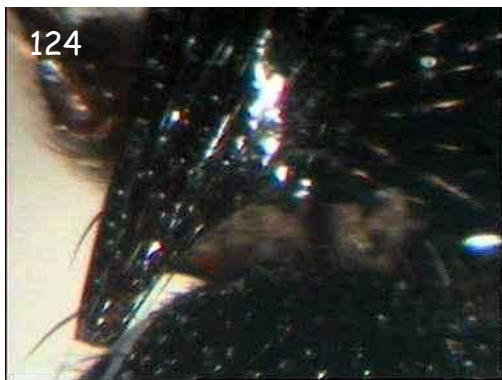
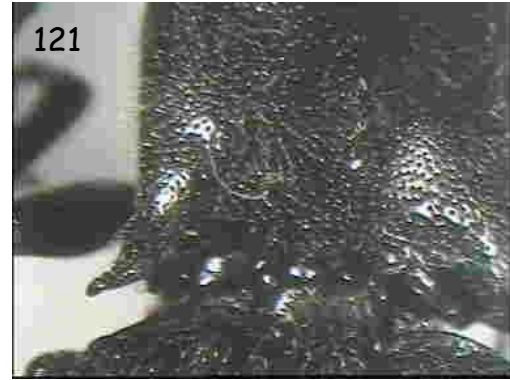
Figs. 96-104. - Particular of profile, base and/or posterior angles of pronotum. **96.** - *Lacon brachypterus* n. sp. **97, 97a.** - *Lanelater sabatinellii* n. sp. **98, 98a.** - *Lanelater pakistanicus* n. sp. **99.** - *Adelocera sabatinellii* n. sp. **100.** - *Adelocera islamabadensis* n. sp. **101.** - *Adelocera kundlanensis* n. sp. **102.** - *Adelocera afghana* Platia & Gudenzi, 2002, ♀. **103.** - *Adelocera foveatus* Vats & Kashyap, 1992. **104.** - *Agrypnus argentosquamosus* Vats & Kashyap, 1992.



Figs. 105-111. - Particular of profile, base and/or posterior angles of pronotum. **105.**- *Agrypnus ellipticus* (Candèze, 1857). **106.**- *Agrypnus tostus* (Candèze, 1857), ♀. **107, 107a.**- *Agrypnus transversus* (Candèze, 1857). **108.**- *Compsolacon triticumunis* (Vats & Kashyap, 1992), ♀. **109.**- *Octocryptus babaulti* Fleutiaux, 1944. **110.**- *Aeoloides hrebalyi* n. sp. **111.**- *Conoderus aeolodermoides* n. sp., ♀.



Figs. 112-119.- Particular of profile, base and/or posterior angles of pronotum. **112.**- *Conoderus nigromaculosus* Vats & Chauhan, 1992. **113.**- *Heteroderes gallagheri* Platia & Schimmel, 1997. **114.**- *Heteroderes sabatinellii* n. sp. **115.**- *Heteroderes jagemanni* n. sp. **116.**- *Heteroderes curtus* n. sp. **117.**- *Heteroderes sericeus* Candèze, 1859. **118.**- *Heteroderes spinosus* Candèze, 1890. **119.**- *Drasterius sabatinellii* n. sp.



Figs. 120-126. - Particular of profile, base and/or posterior angles of pronotum. **120.** - *Drasterius brahminus* Candèze, 1859. **121.** - *Denticollis oculus* n. sp. **122.** - *Mulsanteus sabatinellii* n. sp. **123.** - *Xanthopenthes sabatinellii* n. sp. **124.** - *Priopus vafer* (Erichson, 1841). **125.** - *Craspedostethus ronkayi* n. sp. **126.** - *Rismethus pistrinarius* (Candèze, 1857).



Figs. 127-135. - Habitus. **127.** - *Lacon brachypterus* n. sp. (6 mm). **128.** - *Lacon kurukshetrensis* Vats & Kashyap, 1992 (15.5 mm). **129.** - *Lacon monticola* (Candèze, 1900) (10.5 mm). **130.** - *Lanelater sabatinellii* n. sp. (25 mm). **131.** - *Lanelater pakistanicus* n. sp. (26 mm). **132.** - *Adelocera sabatinellii* n. sp. (6.5 mm). **133.** - *Adelocera islamabadensis* n. sp. (7.3 mm). **134.** - *Adelocera kundlanensis* n. sp. (3.75 mm). **135.** - *Adelocera afghana* Platia & Gudenzi, 2002 (5.2 mm).



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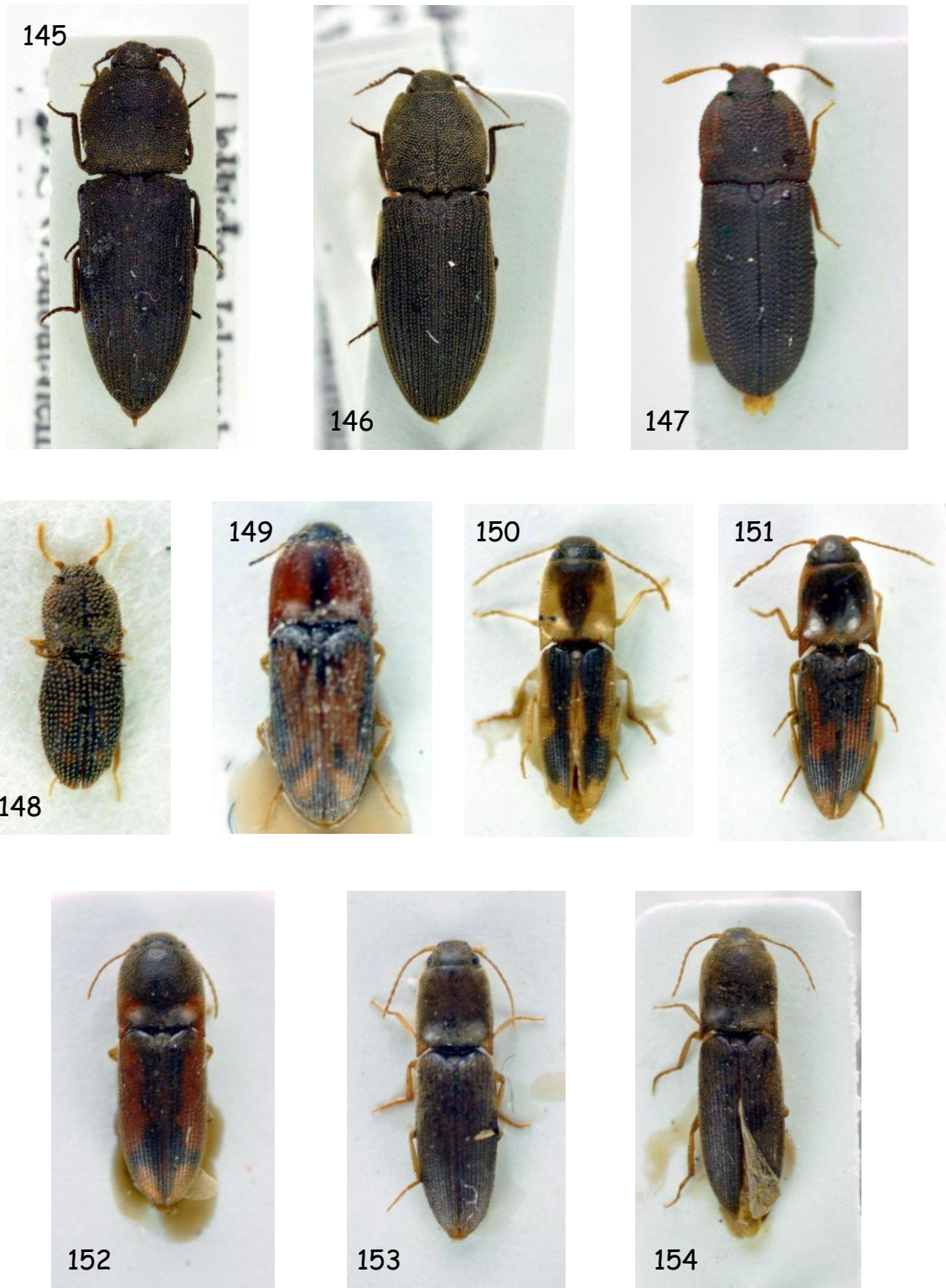


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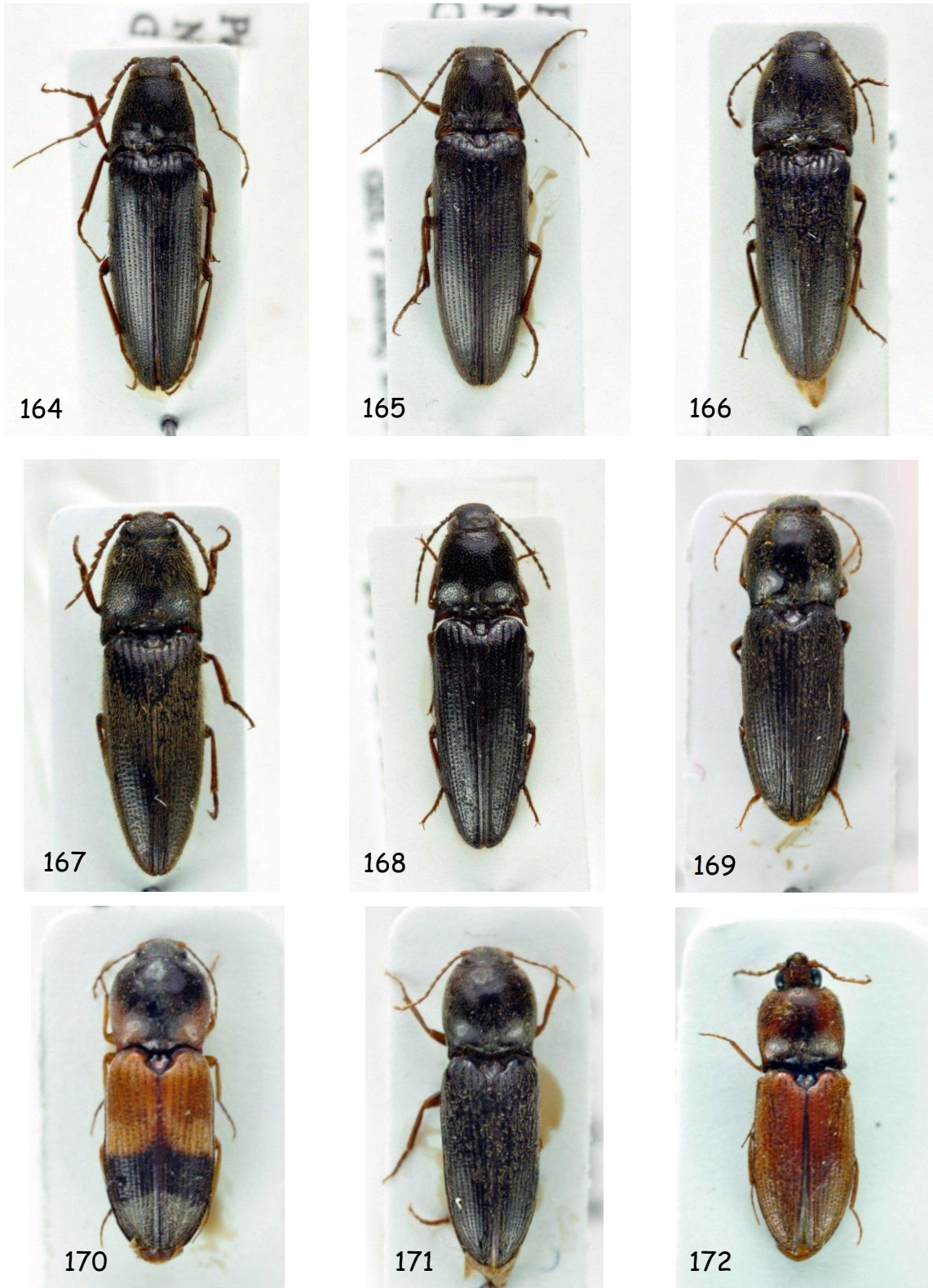
Figs. 136-144. - Habitus. **136.** - *Adelocera foveatus* Vats & Kashyap, 1992 (8.8 mm). **137.** - *Agrypnus argentosquamosus* Vats & Kashyap, 1992 (13 mm). **138.** - *Agrypnus consobrinus* (Candèze, 1857) (15 mm). **139.** - *Agrypnus ellipticus* (Candèze, 1857) (13 mm). **140.** - *Agrypnus piger* (Candèze, 1889) (11 mm). **141.** - *Agrypnus tostus* (Candèze, 1857) (7.5 mm). **142.** - *Agrypnus transversus* (Candèze, 1857) (10 mm). **143.** - *Agrypnus truncatus* (Herbst, 1806) (13 mm). **144.** - *Compsolacon cachmiriensis* Della Beffa, 1931 (15.8 mm).



Figs. 145-154. - Habitus. **145.** - *Compsolacon triticumunis* (Vats & Kashyap, 1992) (13 mm). **146.** - *Compsolacon tuberosus* (Vats & Kashyap, 1992) (11 mm). **147.** - *Octocryptus babaulti* Fleutiaux, 1944 (5.6 mm). **148.** - *Rismethus pistrinarius* (Candèze, 1857) (2.7 mm). **149.** - *Aeoloides hreblayi* n. sp. (3.3 mm). **150.** - *Conoderus aeolodermoides* n. sp. (4.3 mm). **151.** - *Conoderus nigromaculosus* Vats & Chauhan, 1992 (5.2 mm). **152.** - *Drasterius sabatinellii* n. sp. (4.0 mm). **153.** - *Heteroderes sabatinellii* n. sp. (5.0 mm). **154.** - *Heteroderes jagemanni* n. sp. (6.3 mm).

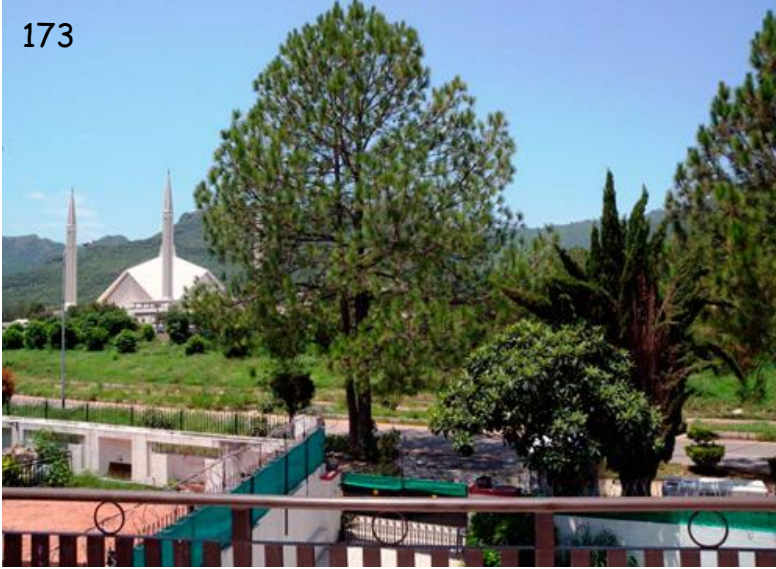


Figs. 155-163. - Habitus. **155.** - *Heteroderes curtus* n. sp. (10.6 mm). **156.** - *Denticollis oculatus* n. sp. (18.6 mm). **157.** - *Selatosomus whitei* (Candèze, 1900) (17.5 mm). **158.** - *Mulsanteus sabatinellii* n. sp. (11.5 mm). **159.** - *Xanthopenthes sabatinellii* n. sp. (9.3 mm). **160.** - *Adiaphorus sabatinellii* n. sp. (10 mm). **161.** - *Melanotus gorodinskii* Platia, 2005 (14.2 mm). **162.** - *Melanotus hirticornis* (Herbst, 1806) (15.5 mm). **163.** - *Melanotus loebli* Platia & Schimmel, 2001 (15.5 mm).



Figs. 164-172. - Habitus. **164.** - *Melanotus opicus* Candèze, 1900 (14 mm). **165.** - *Melanotus riesei* Platia & Schimmel, 2001 (12.5 mm). **166.** - *Melanotus punctosus* (Walker, 1854) (14 mm). **167.** - *Melanotus punctosinus* Cate, Platia & Schimmel, 2002 (11 mm). **168.** - *Priopus vafer* (Erichson, 1841) (12.7 mm). **169.** - *Dicronychus zianii* n. sp. (7.8 mm). **170.** - *Dicronychus eximius* (Candèze, 1860) (6.1 mm). **171.** - *Dicronychus unicus* (Vats & Chauhan, 1991) (8.0 mm). **172.** - *Craspedostethus ronkayi* n. sp. (5.5 mm).

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Figs. 173-175.- Landscapes from North Pakistan.

173.- Permanent collection site at Islamabad E7 facing the Margalla Hills.

174.- Forest view in Azad Kashmir, Muzaffarabad.

175.- Landscape in the Kaghan Valley, Hazara district of Kyber Pakhtunkhwa.



Figs. 176-177.- Landscapes from North Pakistan.

176.- Lake Saif-ul-Malook (Naran), in Kaghan Valley, Hazara District of Kyber Pakhtunkhwa.

177.- Landscape in Shogran, Kaghan Valley, Hazara District of Kyber Pakhtunkhwa.

